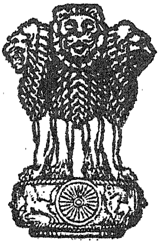


सत्यमेव जयते

INDIAN AGRICULTURAL
RESEARCH INSTITUTE, NEW DELHI

I.A.R.I.

GIPNLK—2/IARI/61—1-8-63—5,000.

ELIMINATE UNCERTAINTY

from your feeding

Feed O.C.O Balanced Rations and save time, trouble and doubt. O.C.O Balanced Rations are always dependable and produce the best results at most reasonable cost. Each O.C.O Balanced Ration is a complete, scientifically balanced and blended feed designed for its particular purpose. Feed O.C.O Balanced Rations to keep down your feeding costs.

O.C.O

BALANCED RATIONS

FOR CATTLE, SHEEP AND PIGS

Manufactured by **OLYMPIA OIL & CAKE CO. LTD.**
(Cattle Foods Dept.)
UNILEVER HOUSE, BLACKFRIARS, LONDON, E.C.4.
MILLS—SELBY, YORKS.

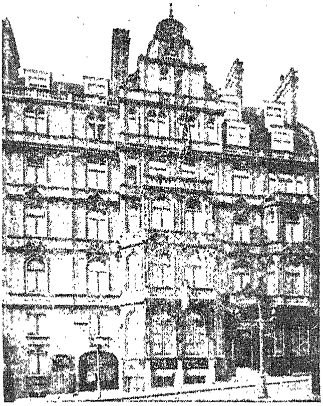
O 84-23A

LONDON, W.C. 2

NORFOLK HOTEL

SURREY STREET, STRAND.

Telephone :
TEMPLE BAR
7001 (P.B.EX.)



Telegrams :
"FOLLOWING
ESTRAND
LONDON"

MOST CENTRAL POSITION IN LONDON

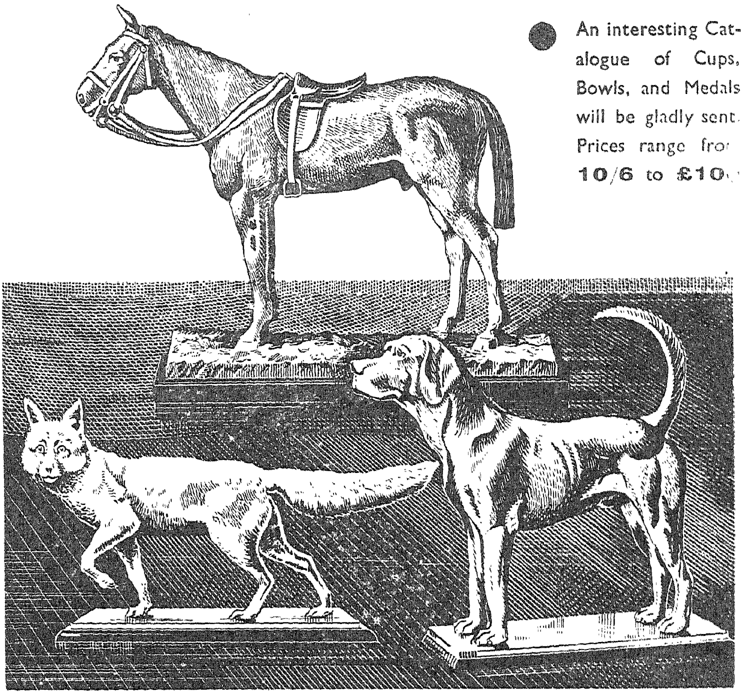
ENTIRELY MODERNISED

NEW BATHROOMS, LAVATORIES, CONSTANT SUPPLY OF HOT AND COLD WATER, AND TELEPHONES IN BEDROOMS. DAY AND NIGHT SERVICE.

SINGLE BEDROOMS from - - 10/-
DOUBLE BEDROOMS from - - 18/-

INCLUDING FULL BREAKFAST AND BATH.

FULL TARIFF ON APPLICATION.



● An interesting Catalogue of Cups, Bowls, and Medals will be gladly sent. Prices range fro
10/6 to £10

MODELS It is nice to have a permanent memento of a favourite animal, or of a Sporting Event. Mappin & Webb specialise in modelling from life or Photographs and have recently received many important commissions. Correspondence is cordially invited and full particulars will be sent without obligation.

MAPPIN & WEBB *Ltd.*

THE SILVER SPECIALISTS

156-162 OXFORD ST. W. 1   172 REGENT ST. W. 1   2 QUEEN VICTORIA ST. E.C.4, LONDON

PRIZE WINNERS AT THE
LONDON DAIRY SHOW, 1935, FED ON

G. B. CUBES

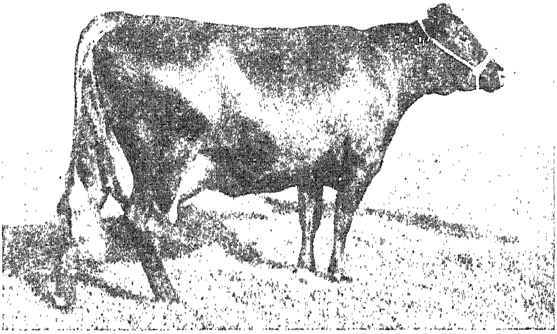
OBTAINED

54 AWARDS

INCLUDING

19 Medals, First Prizes & Special Prizes

Our own Red Poll Cow Bred at our Experimental Farm



Mistley Amethyst was awarded

1st Prize Milking Trials

3rd Prize Inspection

CERTIFICATE OF MERIT BUTTER TESTS

and Silver Medal

Sole Manufacturers—

BROOKS (MISTLEY), LTD.

MISTLEY ∴ MANNINGTREE ∴ ESSEX.

RESULTS

OF THE 8th B.O. & C.M. NATIONAL MILK-YIELD COMPETITION

1st OCTOBER 1934 to 1st OCTOBER 1935

Classes 1 and 2. Yields calculated in herds of 32 cows or less on the best eight cows; herds over 32 cows on 25%.

CLASS 1 (Open to Friesians only).

		AVERAGE YIEL
1ST PRIZE £100	A. Barber, Carlton Hall Farm, Worksop, Notts	**2001 GALLON**
2ND PRIZE £50	Ipswich Mental Hospital, Foxhall Road, Ipswich, Suffolk	**1963 GALLONS**
3RD PRIZE £35	Exors. of W. H. Hutley, Sutton Hall, Rochford, Essex	**1934 GALLONS**

CLASS 2 (Open to all breeds other than Friesians, Channel Island Breeds, Kerries and Dexters).

1ST PRIZE £100	S. E. Howse & Sons, Elms Farm, Botley, Oxford	**1830 GALLON**
2ND PRIZE £50	W. J. Borlase & Sons, Wootton Manor, Henley-on-Thames, Oxon	**1772 GALLON**
3RD PRIZE £35	Captain R. S. Hall, New Hall, Tendring, Clacton-on-Sea, Essex	**1624 GALLON**

Class 3. Yields calculated in herds of 24 cows or less on the best six cows; herds over 24 cows on 25%.

CLASS 3 (Open to Channel Island Breeds, Kerries and Dexters only).

1ST PRIZE £50	S. S. Lockwood, Normanby Hill Dairy, Sinnington, York	**1506 GALLON**
2ND PRIZE £25	Captain R. S. Hall, New Hall, Tendring, Clacton-on-Sea, Essex	**1288 GALLON**
3RD PRIZE £15	H. S. Mountain, Groombridge Place, Kent	**1259 GALLON**

Ten prizes of £10 and twenty prizes of £5 for next highest yields (Classes 1 and 2); thirteen prizes, amounting to £100, for the highest percentage increases over those of the last two years; £60 for Scottish competitors; and £45 for new competitors

THE ENTIRE HERDS HAVE BEEN FED ON

B.O. & C.M.

BALANCED DAIRY NUTS

B.O. & C.M. also includes the following brands:—ROBSON'S, UNION, S.B.S., FOSTER, PEARSON PALATINE, J.R., PHŒNIX, PARRY MASON

THE BRITISH OIL & CAKE MILLS LTD.

UNILEVER HOUSE, BLACKFRIARS, LONDON, E.C.4

BOC 450.R-23

BRANCHES IN ALL PARTS OF THE CO

JOURNAL

OF THE

British Dairy Farmers' Association

VOL. XLVIII.

1936

PRICE 6s. (*Free to Members*)

London
BRITISH DAIRY FARMERS' ASSOCIATION, 28, RUSSELL SQUARE, W.C.1.
W. E. BAXTER LTD., 34 AND 35, HIGH STREET, LEWES.

If Safety First is important

And in dairy produce it follows that it must be—then Mono Containers will be proved to be not only the best and most hygienic packings, but also the most economical to use and satisfactory to handle.

Mono Containers are obtainable either with screw caps or disc lids. Save your pocket by cutting down expenses at the production end, delight your clients by the efficiency, pleasing appearance and security of Mono Containers and convince yourself of their complete superiority. May we send you samples and quotations from our wide standard range of containers? We are glad also to design special packages to your particular requirements.

MONO

The first and the foremost of "nested" containers

MONO CONTAINERS LTD., PARK ROYAL, LONDON, N.W. 10
TELEPHONE: WILLESDEN 0900 (5 LINES)

CONTENTS

VOLUME XLVIII.

1936.

PAGE.

MEMOIR OF THE LATE WILLIAM BURKITT, J.P., M.Sc., N.D.D. 9

ORIGINAL ARTICLES AND REPORTS

BREEDING DAIRY CATTLE 11
By A. D. BUCHANAN SMITH.

SOME SCIENTIFIC ADVANCES OF INTEREST TO DAIRY FARMERS 25
By HUGH NICOL, Ph.D., A.I.C.

DAIRYING IN THE THAMES AREA 35
By JAMES MACKINTOSH, O.B.E., N.D.A., N.D.D.

NORTHERN IRELAND'S MILK MARKETING SCHEME 50
By G. SCOTT ROBERTSON, D.Sc.

ROPINESS IN MILK 62
By KENNETH L. RICHARDS.

INTERNATIONAL DAIRY FEDERATION 67
By T. J. DRAKELEY, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.

RECORDS OF TYPE, SIZE AND PRODUCTION OF REPRESENTATIVE ANIMALS AT THE LONDON DAIRY SHOW, 1935 74
By Sir J. Q. LAMB, J.P., M.P., S. BARTLETT, M.C., B.Sc., and W. F. JESSOP.

ANNUAL REPORT OF THE CONSULTING CHEMIST 97
By T. J. DRAKELEY, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.

THE DAIRY SHOW OF 1935

PAGE.

General Report. By Sidney Edwards 98

New and Improved Inventions. By J. G. Stapleton and C. N. Goode 111

Milking Trials of Cows and Heifers. By T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I. 125

Robert Mond Challenge Shield Awards. By James Mackintosh, O.B.E., N.D.A., N.D.D. 222

Milking Trials for Goats. By T. W. Palmer 227

Butter Tests. By R. H. Evans, B.Sc. 236

Poultry Section. By W. J. Golding 269

Pigeon Section. By W. S. Brocklehurst, J.P. 276

Awards of Prizes 288

List of Judges 312

OFFICIAL

Objects of the Association and Privileges of Members... 315

The British Dairy Institute 325

The 60th Half-Yearly Report of the Council ... 327

The 60th Annual Report of the Council and Financial Statements 331

The Medal Scheme 339

The Conditions Relating to Prize Essay 343

The Production of Clean Milk 344

Syllabus of Examinations for National Dairy Diploma and Certificates for Factory Managers, Cheese-making and Buttermaking for 1935 345

Results of Examinations in 1935 362

Examination Papers for 1935 366

Members of Council and Committees 384

List of Members and Affiliated Societies 387

Index to Advertisers 421

The late WILLIAM BURKITT, J.P., M.Sc., N.D.D.

MEMOIR OF THE LATE WILLIAM BURKITT, J.P., M.Sc., N.D.D.

By the sudden death of William Burkitt on November 30th, the British Dairy Farmers' Association has lost one of its most active members of Council, and it is with the deepest regret that this Association records the loss of a man of such wide and sterling qualities. His sound judgment on all agricultural and dairying problems, was welcomed at all times, not only by the British Dairy Farmers' Association, but by all agriculturists throughout England.

Mr. Burkitt started his agricultural training at Newcastle, where he took his agricultural degree. He was aferwards a student at the British Dairy Institute, Reading, being one of the first students to take the National Diploma in Dairying. He became a member of the British Dairy Farmers' Association in 1906; was elected to the Council in 1917, and was a very prominent member of the Education and Conference Committee over a long period. He acted as an examiner for many examinations, among the most important being The National Dairy Examination Board Diploma in Dairying; National Diploma in Agriculture; the Association's Certificates, etc., and his sympathetic and fair methods made him most popular in this capacity. For a number of years he was chairman of the National Dairy Examination board; steward of Dairying at the Royal Agricultural Society shows, and an active member of the Council of this Society.

His association with the British Dairy Farmers' Association was only a very small part of his many activities. He was for 36 years land agent to Messrs. Dorman Long & Co., and had full control of their agricultural holdings.

The whole of his life work was devoted to agriculture in all its branches. He was a popular arbitrator; a leading member of the Central Council of the Agricultural Valuers' Association, and a past president of the Northumberland branch. In spite of the many interests associated with his profession, Mr. Burkitt found time to devote to many other branches of public work. He was a J.P. of the County of Durham, a member of the County Council, and for 25 years a member of the Auckland Rural Council. He was chairman of the governors of his old school at Barnard Castle, an active and prominent freemason, being a past master of University Lodge, and held the rank of Past Provincial Grand Registrar. Mr. Burkitt was conveyed to his last resting place on a horse-drawn farm waggon, and his funeral was one of the most memorable ever witnessed in South Durham, being attended by over two thousand mourners.

So ends the career of a highly respected agriculturist, and one who will be very much missed by a large circle of friends. Our sympathy goes out to Mrs. Burkitt in her sad loss.

BREEDING DAIRY CATTLE

By A. D. Buchanan Smith, University of Edinburgh, Institute of Animal Genetics.

You are in for the evening. You have taken off your boots. You have had your tea, and, with your feet on the fender, you are sitting in front of a nice warm fire. Sleepily you switch on the wireless and listen to " For Farmers Only."

A knock at the door. Curses. A message from the cattleman to say that " Rosie Belle " is calving and will you come at once. With a groan you put down your pipe, pull on your boots, put on your coat for it is raining cats and dogs, and, after almost falling into the midden, you arrive at the cowshed to find that the cattleman has managed the job himself.

You walk between the rows of cattle and come upon what seems to be an apparently healthy calf, but in the light of the one oil lamp you cannot see very much. In a non-committal sort of way you say : " Wet night, John." John replies with a grunt. You are longing to have a heifer calf out of " Rosie Belle," but you dare not let your cattleman see how anxious you are. You leave him drying the calf and go and fetch a hot drink for the cow. By the time you get back your cattleman is in a rather better frame of mind. You raise your eyebrows, and he interprets the question by replying in a word : " Heifer."

You heave a sigh of relief and immediately think of the possibilities. She stands a good chance, that little calf lying there in the straw, of being a record yielder. If she has anything of her sire and dam she ought to take a first prize at the local Show. Or she might even . . . .

Hold hard a minute ! Before you go dreaming ahead do you ever look back and think how it is that the little strawberry-roan lying there managed to get into this world ? Take a look back into the past. That calf lying in front of you was once a round ball. Nine months ago it was a very small ball indeed. The thickness of the ball was no greater than the paper on which these words are printed.

In the year 1930, in a laboratory in Baltimore, there was recovered from the womb of a cow a body just that size, a very minute egg. In principle the egg of the cow is the same as that of the hen. If the cow had been properly served you could have watched that egg dividing first of all into two parts, then into four, then into sixteen. A cinema film has actually been taken of the division of the fertilized egg of a cow.

"Fertilized." That takes us back one step further. The egg, as produced by the cow, would never divide and grow into a calf were it not fertilized by the sperm from a bull. That brings us back on to ground familiar to every stockbreeder—but not known in detail.

If you were to take a high-powered microscope and look inside the fertilized egg you would see a lot of rod-shaped things which scientists call "chromosomes." If you had skill in the matter you would be able to discern that these chromosomes, with one exception, occur in pairs. Going back one stage further, you would see in the unfertilized egg that there were only half the number of chromosomes which appear in the fertilized egg, and that none of these are paired.

Then turning the microscope on to one of the sperms you would see that it also contained a number of these rod-shaped bodies, either the same number as the egg or one less. When the sperm reaches the unfertilized egg the rod-shaped bodies go right in and immediately pair off with the chromosomes in the egg. Thus it is that in the fertilized egg there are twice the number of chromosomes which are seen in the unfertilized egg or in the sperm.

Incidentally directly one sperm reaches an egg (that is to say fertilizes it) an elaborate bit of machinery is put into action which prevents any other sperm having any effect whatsoever upon that egg. There is no need to go into further details, but the point which I wish to emphasize is that, as regards the chromosomes, each parent has made an almost equal contribution.

On these chromosomes are found innumerable small bodies called "genes." Each gene has a direct effect upon one or more inherited characters. But it only has that effect when it interacts with the similar gene located on the other chromosome of the pair which comes from the other parent. Thus, although the contribution from each parent is equal, the manifestation of the hereditary character depends upon the interaction of the two genes.

Supposing I have two tumblers of equal size, the one containing water, and the other whisky. I pour these two into a glass jug. The colour of the liquid is not as dense as that of the whisky alone, but it is coloured and not as clear as that of the water. This explains one type of inheritance. If I mate a red bull with a white cow the calf is roan. That is to say it partakes of the colour of both the parents.

Now, supposing I take two other tumblers and fill the one with milk and the other with water, and then mix them in the jug. The mixture is practically as white as that of the tumbler of milk. That illustrates another type of inheritance. If I mate a black bull of a pure breed to a red cow, then the calves are all black.

After this my comparison between tumblers completely breaks down, because if I mate two of these cross-bred black calves together and raise a fairly large number of calves from them, then I will find that while the majority of these calves are black, a certain proportion —25 per cent.—are red like their great grand-parent.

The point to remember is that in the transmission of hereditary characters there are several different types of inheritance, but that all of these depend on the same basal machinery. All these types of inheritance allow for the clear-cut segregation of characters and, as regards any one character studied, you can get by selection of subsequent generations, unit characters segregating out. Some of these characters may be like the parents or grand-parents, and some may hark back to remoter ancestors. Some again may prove to be something entirely new. The great thing, however, is to remember that there is a logical arrangement in whatever happens, and also that you should trace the inheritance of only one character at a time.

Supposing we study more than one character and deal with horns, colour of body, and colour of face. To do so let us mate an Aberdeen-Angus bull to some Hereford cows. We will find that all the progeny of this mating are black-bodied, but with white faces. None of them have proper horns: they are all polled. Supposing we mate some of these cross-breds together, then in the next generation we will get a great variety of animals. There will be some black polls which are indistinguishable from the Aberdeen-Angus grand-parent. There will be black polls with white faces like their immediate parents. There will be black animals with horns. There will be red animals with and without horns, and with and without white faces. Thus we will get some animals indistinguishable from the Hereford grand-parent. We will also get some polled Herefords.

If we grow a sufficiently large population the different types of animals will appear in definite numerical proportions, according as to the mode of inheritance of the different characters. I will tabulate the results of the above mating as follows :—

27 Black—polled—white face ;
9 Black—polled—coloured-face ;
9 Black—horned—white-face ;
9 Red —polled—white-face ;
3 Black—horned—coloured-face ;
3 Red —polled—coloured-face ;
3 Red —horned—white-face ;
1 Red —horned—coloured-face.

This last one will be just like a red Shorthorn, although there has been no Shorthorn blood in the immediate ancestry of any of the animals.

But what interested you about "Rosie Belle's" calf was whether it was a bull or a heifer. The time at which you should have been anxious about that was the moment when the sperm fertilized that minute egg which has grown up into this strawberry-roan calf. The bull sent some two million sperm on their journey to fertilize that egg. Only one of them achieved the purpose for which it was meant.

As regards sex these sperm are produced in absolutely equal numbers. The sex of the calf depended upon which type of sperm first fertilized the egg. That fertilization took place anywhere from 1—36 hours after service. That was the time that the decision was made, and nothing that you could do after could alter the decision except to kill the developing calf.

I am sometimes asked how we know all this, but there is not space in this article to tell you how our knowledge of this subject has been built up during the past twenty years, for that is all the length of time since we first began to understand the machinery of heredity. I will, however, give one illustration of a means by which it is possible to study the forces of heredity.

None of us like twins in our cattle, but twins can be very useful to the scientist. There are two types of twins. The first (called non-identical) are the result of the cow shedding two eggs; and each egg is, of course, fertilized by a different sperm.

The other type of egg is the result of only one egg shed by the dam and fertilized by only one sperm. In its early stages this egg has divided in an abnormal manner. In this way it gives rise to twins which are called "identical." They are thus possessed of the same hereditary mechanism. (There are scientific methods of determining whether a pair of twins are identical or not. Identical twins are always of the same sex. Non-identical twins may be of the same or opposite sexes.)

The value of identical twins for the study of the forces of heredity lies in the fact that, as they grow up, it is possible to see whether the differences between them are due to hereditary or other causes. For this purpose one naturally wants to examine a large number of twins, some of which have been reared together, others of which have been reared apart. From these and other studies it can be said that the force of heredity, as regards milking capacity, lies somewhere between 60 and 75 per cent. of what the animal is going to produce.

Quite rightly most farmers are not interested in the machinery of inheritance any more than they are interested in the machinery of their wireless sets. You are glad to use the outcome of research as it is embodied in the wireless set you purchase. In like manner I propose, in the following pages, to embody the results of researches into the inheritance of milking capacity without explaining how these results have been obtained. At the outset I would warn you not to expect great results, for the number of people who have been doing research work on this subject throughout the world is not great, and is quite infinitesimal when compared to the number of people who have been doing research on wireless and its allied subjects. Perhaps the best way to illustrate these results is to discuss the foundation of a herd of pedigree dairy cattle, and what to look for in animals that you buy for foundation stock. But before doing so let me be quite clear about the productive capacity of our cattle. When we say that a cow is a good milker she may be good either as regards total yield of milk, or good as regards butterfat, or both. It is fundamental to the study of heredity that, as I have already pointed out, we should study one character at a time. Accordingly the scientist divides the inheritance of milking capacity into (1) Quantity of milk ; (2) Quality of milk.

Quantity of milk may be expressed as gallons or pounds. Quality of milk is, by the scientist, considered in pounds butterfat. It is not scientific to discuss the inheritance of percentage butterfat. The reason for this is that a percentage is the expression of the yield of butterfat in relation to the total yield of milk. Yield of butterfat is one thing : total yield of milk is another thing. Therefore a percentage of the one in the other is an expression of two things. As I have said, it is not scientific to study the inheritance of two things. Therefore scientists study the inheritance of pounds butterfat, and not percentage butterfat. At the present time in America and on the Continent of Europe the yields of cattle are being principally reckoned in weight butterfat. It is very seldom now that you hear people talking about the inheritance of butterfat percentage. Herewith are some examples of how misleading butterfat percentage may be.

Cow A gives 1,000 gallons of milk ... 4%=400 lbs. butterfat.
,, B ,, 2,000 ,, ,, ,, ... 3%=600 lbs. ,,
,, C ,, 800 ,, ,, ,, ... 6%=480 lbs. ,, .

The importance of distinguishing between percentage and total yield of fat rests also in the fact that scientists are generally agreed that total yield of milk is, to a large extent, inherited independently of fat yield. Thus, selection, based on gallons of milk and percentage of butterfat, is liable to be misleading. For practical purposes breeders should concentrate on yield in gallons and lbs. fat. I admit that percentage is a handy expression, and is of value in many ways, but beware lest it mislead you in your breeding herd.

Coming now to this herd of cattle you are building up. The surest way of buying a cow that will give a good yield of milk or butterfat is to buy her on the record of a previous lactation. It is not always possible to do this. Hence many people starting herds have to content themselves with buying heifers.

If you are buying heifers in this way I suggest that the first thing to look to are the yields of their half-sisters by the same bull. If the yields of these half-sisters are satisfactory then the chances are that you will buy reasonably good animals. Supposing you set yourself a standard that you wish your heifers to reach in their first lactation. Let us take this standard as 750 gallons @ 4%, which equals 300 lbs. of butterfat. If this is your standard then the half-sisters of the heifers which you are intending to buy should average out at least to that standard as regards both total yield of milk and total yield of butterfat. Personally I would prefer that they should average appreciably more, say 900 gallons @ 3.8%, which equals 342 lbs. butterfat. This is using what is known as the Progeny Test, a weapon which has been regularly employed by master breeders during the past two hundred years.

What about the dams of these heifers ? They certainly are important, and it would be as well that they, in their heifer lactations, should have milked definitely above the standard you are setting for your own herd. If a few of them have not quite reached that standard then it is unlikely that any great harm will have been done, provided that none of them were inherent duds.

But supposing there are no half-sisters, since the heifers you are thinking of buying are sired by a comparatively young bull and this is his first crop of calves ? I would then advise you to look to the record of the dam of the bull. This dam, the *paternal* grand-dam as she is called, is a most important animal. Her yield as a heifer should be well above that which you have set as your own standard, and certainly it cannot be too good a yield. She is the most important one of the four grand-parents. Under the above condition 1,000 gallons at 4% which equals 400 lbs. is, I believe, the minimum yield you should consider.

Heifer	Sire	Paternal Grandsire
		Paternal Grand-dam
	Dam	Maternal Grand-sire
		Maternal Grand-dam.

What about the sire of the bull of these heifers, that is to say the paternal grand-sire ? If, judged by the performance of his own daughters (the aunts of the heifers you are thinking of buying) he has turned out to be a proven good sire, then it is of additional value to him. But if the paternal grand-dam is not good no record-breaking-progeny-tested paternal grand-sire will make up for her deficiencies.

There are the other two grand-parents, the maternal grand-parents. It is as well to study their yields. But since the transmission of their hereditary constitution has been expressed in their daughter, the dam of the heifer you are thinking of buying, they do not need quite the same consideration as does the paternal grand-dam. The maternal grand-sire, if progeny tested, should, at least, have reached the standard : likewise the maternal grand-dam. The better their records, the better the chance for your heifer.

What about the great grand-parents ? Good great grand-parents will never make up for bad grand-parents, just as good grand-parents will never make up for bad parents. If you are satisfied with the pedigree back as far as the grand-parents, there is no harm in inquiring one generation further back. But do not let yourself be mislead by the fact that one of the eight great grand-parents or one of the sixteen great great grand-parents was an excellent beast with an excellent record. Above all, do not let yourself be deceived by the statement which is sometimes made that the half-sister by the same bull of one of the great grand-parents once won the Spencer Cup at the London Dairy Show. Her influence is much too remote to make up for any deficiencies in the intervening generations.

What about the conformation of the heifers which you are thinking of buying ? Let me tell you right away quite definitely and quite dogmatically that there is nothing you can see or measure in an uncalved heifer of a dairy breed that will give you any indication of the amount of milk she will have given you by the time she finishes her first lactation. Doubtless there are those who, in the market, can spot the cow which is likely to give a fairly high yield of milk. I admit that the skilled judge is able to determine roughly the amount of milk that a cow is likely to give, but this method is not infallible.

Scientists have tried to measure different parts of the body of a cow which could be used as an indication of its productivity. Thus we know that, other things being equal, the heavier the cow the more milk she will give. Mr. Garner of Cambridge University has shown us that the greater the diameter of the milk wells, the more milk is the cow likely to give us. But, apart from these and one or two other points, there is nothing we can measure which will give us a very definite idea, and even in these two points the correlation between the measurement and productive capacity is not very high, but they are definitely useful so far as they go.

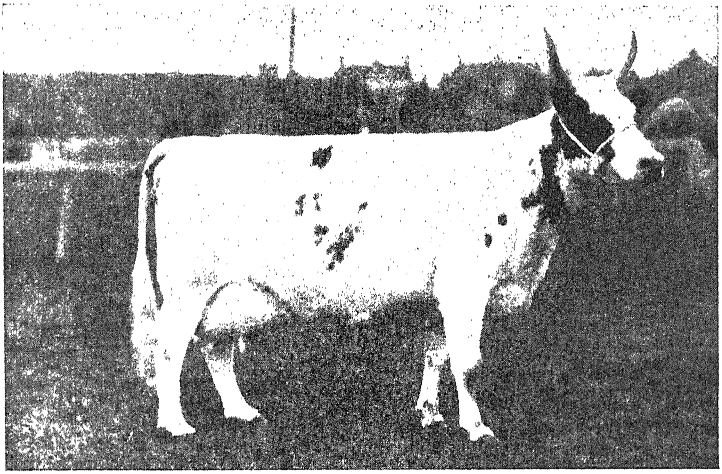
Likewise in the conformation of a dairy bull we know nothing which will indicate to us that he possesses the power to transmit high milking capacity to his progeny. It is these facts which have led certain persons to decry the showyards, and to say that no matter what a cow looks like everything depends upon the amount of milk which she gives. With all respect for these persons I beg to differ from the views they hold. Personally I would not for a moment think of trying to assess the lactation yield of a cow by looking at her or measuring anything about her from the size of her horns or the thickness of her skin to the length of her quarters.

But the true economic value of a cow depends not upon how much milk she gives in one lactation, but on how much she gives in her lifetime. This is where conformation plays a very important part indeed, and one that no modern breeder of pedigree dairy cattle dare for one moment neglect.

Recent studies have shown us that from when a heifer has her first calf, and enters the dairy herd, to when she is drafted out for one cause or another, is from three to four years. In other words about 25 per cent. of the cows in the average dairy herd in England and Scotland are drafted in fresh each year. If you have to bring in such a big proportion of your heifers to your own herd each year, then that means that you can exercise very little selection on your female stock. It is also a costly business replacing a quarter of your cows each year—but I will not go into that just now. How much better it would be if all our cows lived till they were about ten years of age and it were only necessary to replace about 10—15 per cent. of them each year !

There are two ways of achieving this. The one is to select your breeding stock only from cows which have themselves reached ten years of age, and give a decent annual yield of milk.

Such cows are, however, few and far between. The Ayrshire people in this country have copied the Americans in talking about 100,000 lb. cows. By this they mean cows which have given 10,000 gallons of milk in their lifetime. This means that, as a rule, they must have successfully completed ten lactations averaging 1,000 gallons each time. The British Friesians have gone one better and talk about their cows which have given 50 tons of milk. This standard is equivalent to 112,000 lbs. of milk, or approximately 11,200 gallons.

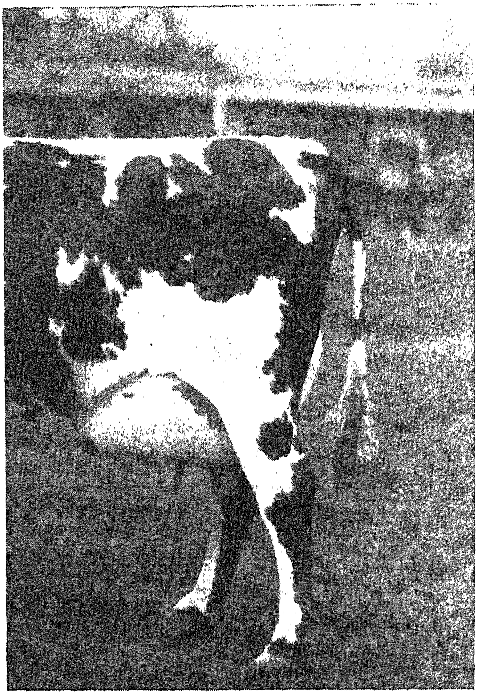


"Auchenbrain Yellow Kate 12th" (54219), born January 5, 1915, owned by Lord Rowallan and bred by Mr. David Wallace, Auchenbrain. She qualifies as a 10,000 gallons of milk cow by having given in fourteen lactations 14,021 gallons and 5,054 lbs. butter.

There are, however, not many of these cows, and if we were to confine the next generation to their progeny there would be very few pedigree dairy beasts in existence. It is not practicable to confine ourselves to the progeny of such worthy veterans. We must remember that there is always the possibility of accident cutting short a promising life.

There is, however, a very definite connection between the conformation of a cow and her ability to milk heavily over a large number of lactations. No cow can achieve a great age and a great yield if her mammary apparatus is not sound. Her bag must not be too pendulous. Her teats must be big enough for the milking machine, but not so clumsy as to increase the risk of their being trodden upon. The animal must have constituton. She must have heart girth in relation to size.

To my mind the legs and feet of a dairy cow are as important as her udder. It is little use having a cow with first-rate mammary apparatus if she is not able to carry it. We all know that Malcolm Campbell pays the very greatest attention to the tyres of his racing cars. He knows that if a tyre bursts then his record goes west. It is precisely the same with the legs and feet of a cow. It is usually possible to discern from an examination of a young cow whether she has the right type of leg. As a rule you can judge her feet also, but not always. Whenever I see a 100,000 lb. cow I always make a point of examining her legs and her feet. The illustration herewith shows an approximation to what I consider to be a very useful type of cow in this respect.



Thus the other way to reduce the number of disposals in your dairy stock is to select your breeding stock, not on records, but on records plus conformation.

Conformation and records of production are not the only things to be considered by the breeder of pure-bred dairy stock. The majority of cows which have reached 100,000 lbs. in their lifetime have been regular breeders. This is extraordinarily important. Sterility is one of the biggest curses of the stockbreeder. Sterility may be due to a variety of causes, the principal one being disease. Inadequate nutrition is another cause. If a cow insists upon giving a high yield of milk despite the fact that her owner does not feed her properly, then it is only to be expected that she will have difficulty in settling in-calf. There is also the hereditary aspect, and that is of some importance in pedigree herds. In commercial herds I do not think it is of the same importance since a breeder gets a sterile cow off to the butcher without waiting a long time to get her in-calf. With a good pedigree animal, on the other hand, the temptation is tremendous to work on and on until you can get a calf from her again. Workers at the United States Department of Agriculture Bureau of Dairy Industry have shown that you can keep apparently sterile cows for a large number of years, and eventually get a very high proportion of them in-calf once more. Undoubtedly some of this sterility is due to hereditary causes. Therefore it is very important to use bulls that come from cows which are themselves regular breeders.

In cattle we do not wish to breed for prolific animals in the sense of cows which will give birth to twins. But what we can do is to breed from animals which will come into season regularly, and settle in-calf without difficulty. It is very important that the bulls that are sold to commercial herds should come from cows of this type. This is another reason for scrutinizing most carefully all the records available of the dam of any bull which you are thinking of buying.

Some cows are too kind to their owners. These cows milk themselves away to a shadow, so that at the end of the lactation they are almost unrecognisable. I do not think this is a useful type of cow to possess, and my observations show that this characteristic is inherited. There is another type of this cow. On our Experimental Farm we have a group of heifers, all by one bull, which milk themselves away very badly in their first lactation. However, in their second and third lactations they seem to be able to get a better grip of themselves. At the same time I do not think that this is a desirable characteristic.

Then there are the greedy cows, cows which consume an enormous amount of food in relation to the amount of milk which they yield. We keep records of the amount of food which our cows eat, and we find that some cows produce milk and keep themselves in perfect health on an appreciably smaller production ration than do other cows. Again, in the selection of bulls, it is good to have a cow from an economic mother.

I am frequently asked as to whether inbreeding pays. The answer that I usually give is that it is a sound practice provided your foundation stock are good and that your purse is a deep one. An interesting experiment was started by the United States Department of Agriculture Bureau of Dairy Industry in 1912—and is still going on. There were two foundation bulls mated to the same lot of cows. These were then mated to their own daughters. Inbreeding has been continued in the two strains ever since then. In the one case it has been a success as regards milk production ; in the other it has very definitely been a failure. That is what is meant by good foundation stock. Since you cannot be sure of the soundness of your foundation stock until you have been inbreeding, that is why it is a bit of a gamble and only to be undertaken by one who can afford to run the financial risk involved. A small degree of inbreeding, judiciously performed, is probably of advantage to most pedigree herds.

The practical outcome of inbreeding is that an inbred animal is prepotent. Prepotency is characteristic of pedigree stock. When the commercial farmer buys a pedigree bull he wants a prepotent animal. Prepotency can also be achieved by selection. Our pedigree breeds have been selected for certain desirable characteristics for a long time, hence they have achieved a degree of prepotency which cannot be found amongst the ordinary stock.

If, however, you inbreed to indifferent stock, then the animals become prepotent for the bad characters of that stock. That is why inbreeding is called a two-edged weapon.

" Why not have cross-bred animals for milk production ?" People who say that consider how well cross-breds do at Fat Stock Shows. The reply is that beef and milk are not inherited in the same way. By crossing animals of two different beef breeds we encounter in the progeny a phenomenon called " *hybrid vigour.*" The calf has the good qualities of both the parents. This does not occur if you cross two dairy breeds where the yield, as regards both milk and butterfat, is usually intermediate. If you cross a 20,000 lbs. cow with a bull of a 6% butterfat breed, the progeny will not give you 20,000 lbs. at 6%. Crossbreeding in dairy production can only be justified where you have also got to consider beef production as an important point : that is, where you are dealing with dual-purpose animals. Thus it is that the Dairy Shorthorn x Ayrshire cross is a good beast. According to market demands it may be a better dual-purpose beast if it has another cross of Shorthorn on top of it.

Observations on crosses between dairy breeds on other people's farms and my own experience in our own herds, is that the crosses between the breeds are not of outstanding value.

It never will be possible to achieve certainty in heredity. What is possible is to increase the odds in favour of what you want. Pedigree, by greatly increasing the odds in favour of the production of good yielders, is of value not merely to the breeder who wants to win in the showyard, but also to the commercial dairy farmer, for with pedigreed animals the odds are in his favour.

Pedigree should always be interpreted in relation to production. In the past there have been occasions when pedigree has been overemphasized, to the detriment of milk records. That is not the fault of the pedigree system. A pedigree must always be read in conjunction with the record of performance—not only as regards milk yield, but also hardiness, type, and prolificacy.

Animals only inherit possibilities. As regards their productive qualities they do not inherit completed structure. The amount of milk that a cow will give is dependent upon environmental and nutritional causes interacting with an hereditary basis. This fact must always be taken into consideration in the interpretation of records. An example from our own experiments may make this clearer. We are running tests of six groups of cows by six different bulls. All these groups are receiving similar treatment on our farm. Each group has another group, sired by the same bull, which is being reared on the farm from which these cows were bought as heifers. We can thus compare the yields of each group of cows in our own byre with each other, and are in this way able to estimate the worth of the six different bulls we are testing. (No group of cows consists of less than six individuals).

The experience of one group of ten cows in our herd as compared to a similar number of cows sired by the same bull in another herd is of interest. The group in our herd have averaged 1,050 gallons as heifers; their half-sisters by the same bull in another herd have averaged, as heifers, under 800 gallons. According to our standards the bull is outstanding. According to the figures of the other herd the bull is an indifferent one.

It is for this reason that, while thoroughly endorsing the principle of the Progeny Test, I find it difficult to agree entirely with those who desire to construct a form of "Bull Index" which is designed to attribute to a bull the amount of milk he would have given if he had been a cow. In the selection of a bull there is much to consider beyond the average yield of his daughters. If we give the bull an index figure there is a danger of considering that it is correct and does not need to be further interpreted in the light of the time and place that the records of the daughters were made.

If the Progeny Test becomes too popular there is a real danger lest we breed for a type of heifer that, not only calving early, gives a high first lactation yield. Too great a desire to obtain quick and startling results in order that the value of an old bull may be enhanced will inevitably lead to the extension of what seems to many of us to be an undesirable type of dairy heifer. I have noticed in certain families in both the Ayrshire and the Dairy Shorthorn breeds—though more especially the latter—that heifers giving quite low yields in their first lactation (800 gallons) may, when they are mature nearly reach—or even pass—the 2,000-gallon mark. Few of the 10,000-gallon lifetime cows with which I am acquainted gave really remarkable yields in their first lactation.

There are those who say that the rate of improvement in pedigree breeds is very slow. The scientist who deals with heredity measures time, not in years, but in generations. Professor Lush of Iowa has stated that "if a breeder pays no attention to bulls, but selects his cows so intensively that those saved for breeding average 150 gallons more than their entire contemporary generation, then it is possible to expect that the next generation will average about 25 gallons more than the generation in which their parents were born." This may seem a surprisingly low rate of progress, but if the bulls also are selected on the same basis, the rate of increase will be doubled. The above basis of selection is fairly intense, and the results achieved may appear small. The point to be emphasised is that to get the best results, selection must be made on both sides of the pedigree. Another study from America by Dr. Plum confirms in principle the argument of Professor Lush. The same holds good for butterfat.

We must not condemn the old methods which our fathers have tried and found extremely helpful to them. Those who have gone before us in the game of breeding British livestock were shrewd men. Modern science has shown that the majority of the things they thought and did were right, and can be explained scientifically. Science is not going to revolutionize the game of breeding livestock. It seeks rather to re-enforce the methods of the master-beeders of the past. Each new generation of breeders has no longer to disentangle fact from fancy. The existence of the science of Heredity enables the young breeder to start at the place where his father left off.

This is no mean achievement to the credit of the science of Genetics, for it must be remembered that, whereas the improvement of the hereditary qualities of crops rests safely in the hands of a few skilled research workers, the improvement of our livestock depends upon innumerable breeders distributed throughout the country. British breeds of livestock are the envy of the whole world. That our breeds of livestock are, with one exception, more widely distributed than those of any other country, redounds greatly to the credit of the practical farmers of yesterday. To maintain our position as "the stock farm of the world" requires skill and intelligence from their successors, the British dairy farmers of to-day.

SOME SCIENTIFIC ADVANCES OF INTEREST TO DAIRY FARMERS

By Hugh Nicol, Ph.D., A.I.C.
Rothamsted Experimental Station, Harpenden, Herts.

I. Grassland and Leguminous Crops.

Management of grassland is to cowkeepers a subject as perennial as the crop. That grass is now recognised as a crop, is itself significant as an advance. Towards the end of the last century, increasing attention was given to the problem of arable land, and mixtures of seeds for sowing down were studied to a degree which now seems disproportionate ; but permanent grass, once established, was looked upon by farmers and scientists alike as something which very largely looked after itself.

Upon the foundation of the early meadow experiments of Lawes and Gilbert at Rothamsted, and the Cockle Park work with basic slag, new influences—the application of new sciences such as ecology and soil bacteriology, and the commercialisation of atmospheric nitrogen on the factory scale—have wrought a fresh understanding of grass. It is now widely recognised that good grass rates very highly ; there is a need of corresponding skill on the farmer's part to make and keep his grass good. The term " grass " is often taken to be the same as " the produce of grassland," which means grass plus clovers, and sometimes weeds as well. The old graziers were aware of the high feeding value of grass, and science has lately stressed its richness in protein. Analyses have shown that fresh young grass proper is as rich in protein as are the general run of fodder legumes such as clover and lucerne, while the dry matter of young grass has the protein composition of a concentrate. When the grass is allowed to grow so that it loses its right to be called young, its protein becomes increasingly overshadowed or diluted by less valuable substances.

The problem before the farmer is therefore to utilise grass at its most nutritious stage. This aim is best reached by judicious grazing, whereby the pastures are stocked sufficiently heavily to ensure that the growing grass is not allowed to " grow away " from the animals. Frequent mowing is an imitation of grazing, but on the large scale offers difficulties. The so-called " rotational " system of small paddocks rested and grazed in succession, together with an avoidance of grazing by one type of stock, seems to be the best practice, not with regard to nutrition alone, but also with regard to infestation by noxious organisms, such as stomach worms of sheep. With grass, as with other crops, the problems of alternate plenty and scarcity present themselves.

The younger the grass the richer the hay[1], but losses in haymaking are invariably serious. If fresh grass is rapidly dried by artificial means it loses little of its nutritive matter; protein, carbohydrates, and vitamins are practically unimpaired. Some progress has been made with the design of grass dryers, but difficulties of production and storage have not been overcome sufficiently to make artificial grass-drying available to the majority of farmers.[2] The work on grass drying has, however, served to stress anew the wisdom of making hay early—before protein and digestible carbohydrates in the plant give place to excessive stem and fibre. The simpler method of making the hay on tripods, by permitting a freer circulation of air, minimises the losses due to destructive weathering.

Neither the incorporation of wild white clover in mixtures for sowing down nor the use of the seed upon established pastures is one of the most recent developments. New insight into the value of clover in grassland has, however, been gained recently. Originally, no doubt, clover was mixed with grass with the intention of increasing the protein content of the herbage, before it was realised how rich in protein the leaves of well-grazed grass can be. Clovers, like other leguminous plants, are able to obtain their full requirements of nitrogen from the atmosphere by the aid of the bacteria which form the characteristic root-nodules. The leguminous plants have a peculiarly rich store of nitrogenous materials in both tops and roots at all mature stages of their growth, and when the whole or part of the plant dies the dead part decomposes and furnishes a natural nitrogenous manure to plants which later occupy the ground. This residual manurial value is appreciable for a number of years after lucerne has been grown[3]: the ordinary rotations make use of the residual manurial value (derived mainly from legume roots) by growing a cereal without nitrogenous manure after seeds.

It has been very recently shown that the value of leguminous crops is not limited to the transformation of atmospheric nitrogen into proteins and into manure for *succeeding* crops. Experiments with leguminous plants grown in sand have shown that an actual excretion of simple nitrogenous compounds takes place from the roots into the sand, when the proper nodule bacteria are supplied. The amount of nitrogen in the substances thus set free has been about as great as the amount present in the entire plant. More interesting still is the fact that the nitrogenous substances excreted from the leguminous plant into sand have been found entirely suitable for the growth of a non-legume such as oats in the same pot, when the non-legume received no artificial nitrogen whatever. We thus have evidence that in conjunction with their nodule bacteria, legumes can furnish, to non-legumes, nitrogen derived from the atmosphere: this not merely as a result of decomposition, but during the early life of the leguminous plant.

It remains a question not entirely resolved, how far these nitrogenous products of living legumes are available to associated non-legumes in the field (as for example, to grasses among clovers or to oats among vetches). The nitrogenous excretions of the legumes are comparatively simple compounds, readily attackable by the enormous host of soil bacteria[4]; these compounds may therefore be decomposed before they can be taken up by the companion grass or cereal. Such decomposition need not however vitiate the argument, for, unless the nitrogenous substances are reconverted entirely by soil micro-organisms into gaseous nitrogen, it is probable that they will add to the stock of soil nitrates. A further possibility is that the roots of legumes and non-legume interpenetrate and entwine so closely that the transfer is accomplished with little or no loss, as if the grass actually suckled the legume. Field experiments are suggestive rather than conclusive concerning these points.[5] Rothamsted field experiments have not demonstrated beyond doubt that cereals gain nitrogen excreted by vetches and peas, but they have shown that the addition of artificial nitrogen (nitrate of soda and sulphate of ammonia) to some cereal-legume mixtures led to no increase of nitrogen in the crop. In these experiments therefore, it has appeared that the legumes in fodder mixtures, together with the soil's original stock of nitrogen, were able to provide all the nitrogen that the mixed crop was capable of taking up.

When permanent grassland bears a mixture of legumes and grasses, it can be seen to be equally as uneconomic to manure it with artificial nitrogenous manure, except for special purposes such as the obtaining of an early bite, which will be discussed later.

Apart from any excretion from the clover, nitrogen in a form which the grass can sooner or later use is being supplied by the clovers as parts die off, are shed, and decompose. Hence the inclusion of perennial clovers in grass can be seen to be a form of permanent nitrogenous manuring, obtained from the air through the agency of the nodule bacteria at no cost to the farmer. It is important therefore to supply clovers if they are absent, and to encourage them (though not to an excessive extent) when they are present.

Much potentially good grassland is merely dormant awaiting the right conditions, amongst which must be reckoned aeration of the surface, correction of acidity, and an adequate supply of phosphate and calcium. Hence the remarkable results achieved in many cases by the unsparing use of the harrow[6] and of basic slag alone, whereby wild clover springs up as if by magic. In other cases clover has had to be sown, though sowing clover is wasting money unless the proper conditions are *first* established[7].

Actually some of the most successful plots of the old-established Park Grass experimental meadow at Rothamsted have not for many years had nitrogen given to them in any form except such as has resulted from the work of bacteria and other purely natural agencies. This experimental meadow was laid out in 1856 on old permanent grass of the Rothamsted Home Park belonging to Sir John Lawes. One of the earliest of the published papers of Lawes and Gilbert contained a remark that the addition of nitrogenous fertilizers is unfavourable to the leguminous herbage of the meadow. In the early years of the experiment, animals were grazed on the experimental plots for a short period towards the end of each season, but for a long time no stock has been grazed there.

These remarks are introductory to a discussion of the old question of alternative grazing and mowing for hay. The annual alternation has been fiercely condemned by many agriculturists, though—or perhaps because—it is widely adopted in practice. The Rothamsted classical grass plots of Park Grass do not supply a complete answer. They do show that where nitrogenous manure has been withheld, provided a sufficiency of potash and phosphorus is given, perennial mowing twice yearly has not harmed the hay crop. (The grass plots which are not given artificial nitrogen yield hay moderately rich in clover, fairly free from weeds, and of good feeding type, but in mere bulk the coarser hay off other plots considerably surpasses the yields of the clovery plots). This is in spite of the total absence of stock such as a farmer might normally run on aftermath.

On the other hand, there is evidence that continuous shutting up for hay with the taking of only one crop leads to the growth of tall grasses, which overshadow and finally kill out the clovers. Such tall grasses are of the erect, "hay" type so greatly admired by the opponents of alternate mowing and grazing. But a meadow mainly populated by graminaceous plants must sooner rather than later require the addition of nitrogen in some form—either as artificials or as animal excretions—if it is to maintain its yield.

It may be said here that the advantage of nitrogenous manuring of grassland has too often been deduced from consideration of an increased bulk alone, after a nitrogenous artificial has been applied: this, without reference to the composition of the fodder thus obtained. In experimental fodder mixtures of the oats-vetch type, when botanical and chemical analyses were combined, it has been plainly shown at Rothamsted that a gain in bulk of crop may be offset by a corresponding decrease in nitrogen percentage. In such cases the total nitrogen in the crop was practically constant whether nitrogenous manure was withheld or given at two levels : the gain in bulk when artificial nitrogen was given was due to increases in fibre and carbohydrates.[8]

Even to-day it is the exception to find sufficient data given in reports of the effects of nitrogenous fertilisers upon grassland ; *either* botanical *or* chemical analyses may be supplied, but often a statement of gross yields is supposed to suffice. For a correct appreciation of the effects of manures on grassland, it is essential that some estimate of the changes in feeding value should be presented.

Because grazing and treading encourage clovers, continuous grazing presents fewer difficulties than does continuous mowing: the problems of continuous grazing are largely problems of distributing the head of stock at different times of the year. Continuous mowing, however, should be contemplated only (1) when there is a good sole of clover and (2) provided not fewer than two cuts are made yearly. The greater the number of cuts, the smaller the total yield, but the richer it is likely to be.

With such conditions—clover present and cutting at least twice annually—the supply of phosphate and potash is all that is manurially required. If, however, one cut is taken in the year, and especially if that is taken late in the year, a "continuous meadow" is likely to furnish a large bulk of stemmy, grassy hay, and to require an addition of nitrogen as well as phosphate and potash to maintain its yield. In practice, of course, when only one cut of hay is taken, the aftermath is usually grazed—a practice which greatly reduces the harm that would otherwise ensue.[9]

The Rothamsted classical grassland experiments were not designed to provide evidence concerning that recent development —the procuring of a spring flush of grass as an early bite. Knowledge concerning the attainment of this long-desired early bite is a notable achievement arising out of recent grassland research. If a small dressing of nitrogenous manure, such as sulphate of ammonia or nitro-chalk, is applied to grassland sufficiently early in the season, the growth of grasses will be forwarded and the necessary clovers—which do not similarly respond to nitrogenous manuring—need not be checked if the early flush of grass is grazed off as it is meant to be.

Overgrazing during late autumn and winter is a common fault often committed unconsciously, but efforts should be made to avoid it, at least on those pastures intended to give the early bite. Recent research on the effects, upon plant roots, of too vigorous removal of leaves, has revealed a remarkable similarity in the behaviour of different classes of plants in this respect. Excessive leaf removal (defoliation) leads to stunting of roots. Since the roots contain the principal part of the plant's winter food reserves, undue or unseasonable cutting of the tops sends the plant into its overwintering stage with poor reserves, and the least that can happen is a backward start when the next growing season comes. The grazier must also do his bit if he wants the best out of the early bite: it cannot be expected that the bad influence of over-grazing in the preceding season can be entirely overcome by the application of a mere dose of fertiliser[10].

Lucerne is a crop that has been often and powerfully commended to the dairy farmer as a substitute for concentrates. Its responses to cutting have been studied in more detail than have those of any other plant. New information lately gained from lucerne is of value when considering the behaviour of grass when cut or grazed. Lucerne may now, thanks to the process of seed "inoculation" with nitrogen-fixing bacteria, and thanks to better understanding of its cultural needs (especially in its seedling year), be grown in many areas and on many soils which were not previously thought to be suitable.

Lucerne may be grown on almost any neutral soil, not of the shallowest and not having a water table too near the surface, and may even be grown on chalk if the top soil is not acid and if the chalk possesses cracks into which the plant's exceptionally long roots can penetrate. Owing to its deep roots, lucerne can be a stand-by in times of drought; if properly managed it will remain green in the longest hot season. A high degree of drought-resistance should not be expected of lucerne if its roots have been kept short through undue cutting. This caution applies especially to the seedling year. It is recommended that lucerne be sown about April and on deep soils and cut only once in the year of sowing; if sown later than April on any soil, or if spring sown on soils liable to dry out, it should not be cut at all in the year of sowing. If these recommendations are carried out, with the ordinary precautions of good husbandry, a long-lasting stand capable of yielding several cuts in each of the later years may be looked for, after which the field will enjoy a residual manurial effect greater than that conferred by any other plant.[3]

II. Some Problems regarding Liquid Manure.

Disposing of the urine of stalled dairy cattle is a problem most simply solved by running the liquid away. Dairymen who do that are frequently targets for shafts hurled by teachers of an economical turn of mind, who regard the waste of liquid manure as an evil. Consequently, the dairyman is sometimes urged to provide tanks and other costly apparatus for storing the liquid until such time as it can be got away upon some crop. It is often recommended to apply liquid manure to grassland, or to pour the urine over the manure heap.

The effects of carrying out these two recommendations will be discussed. It must first be remarked that a user of liquid manure must incur considerable expense in the provision of ample storage space, unless a continuous process of disposal is employed. In any case, sanitary regulations have to be complied with. In addition, unless the relative situation of buildings and land allows much of the distribution to be gravitational, the cost of pumping and of piping may have to be taken into account. Carting avoids some of these difficulties. Now that pneumatic tyres are available, they might be tried on the wheels of liquid-manure drills.

The urine of herbivorous animals, and of the cow tribe in particular, is very poor in phosphate, containing amounts that cannot be called more than a trace. It is in the dung of bovines that their waste phosphorus is excreted.

Cow's urine is fairly rich in nitrogen (of high availability to plants) and contains an appreciable amount of potash. Its use as manure, therefore, requires skill and some discrimination, since it is unbalanced. In the light of the remarks in the preceding section, it will be readily seen that cows' urine and liquid manure generally, whether diluted or not, cannot be recommended by itself for constant use on grassland if the herbage is to remain of desirable type. Liquid manure applied to grassland, in fact, modifies the type of herbage much as does any other manure poor in phosphate and rich in nitrogen: the taller grasses are encouraged, and the clovers tend to become suppressed.[11] Grassland manured with urine is frequently weedy, and though " weeds " in small quantities fulfil a useful function in providing a varied diet (as Professor F. W. Fagan has shown) their downright encouragement should not be aimed at. If urine is employed on grassland, it should be balanced by a dressing of phosphatic artificials.

It appears, therefore, that the advantages of using urine as a liquid fertiliser could be attained equally well, if not better, by a proper choice of artificials. A proviso should be made that there is some evidence that manures of animal origin contain substances (hormones and such-like) about which it has been suggested that they have a special value in promoting plant-growth. Whether there is a need for such additions to grassland properly manured and grazed, is a point which has not been settled. The use of liquid manure on grass during the early spring may, however, replace artificial nitrogenous fertilisers for obtaining an early bite.

Generally speaking, it would seem that, if liquid manure is applied to land, it should be put upon arable[12]. For the application, a liquid manure *drill* is more suitable than a simple spray-cart[13]. Phosphate manuring should not be neglected.

Liquid manure may usefully be trickled over straw[14], should the farmer happen to have an excess thereof. The compost thus obtained contains phosphorus from the straw; by adding more phosphate (say, half a hundredweight of finely ground rock phosphate per ton of straw) the compost can be converted into something resembling farmyard manure.

On no account should liquid manure be returned to the manure pile. The recommendation to do so apparently dates from an old lecture of Boussingault's[15], and a pump for wetting the dunghill with stored urine is a feature of many French farms. The most that can be said for the pumping is that it arrests fires, but it would be better husbandry to avoid fire-fanging.

It is now known that the addition of urine to farmyard manure or to a finished compost-heap causes losses in the nitrogen of the urine and does not enrich the manure at all. Only very strawy litter, and similar nitrogen-poor material, may be composted by pumping urine over it, and the amount of urine that may be profitably so employed is not unlimited: it is greatest for pure straw, and diminishes to nothing for stall litter of average composition which has already received its quota of nutrients from the animal under which it was made.

CONCLUSION.

This paper will fulfil its purposes if it enables dairymen to profit from some of the conclusions made public quite recently. Novelty cannot be claimed for all of the practical conclusions, many of them having been known to skilled graziers for a long period, but it is legitimate to claim as an advance that a great deal is now understood of the principles underlying the performance of such practices.

A large share of what has been written above centres upon developments in the science of soil microbiology, which touches very closely upon the utilisation of leguminous crops and of grassland. However, soil bacteriology has not been alone; with the progress of that science are coupled advances in ecology, plant breeding, plant physiology, animal nutrition, the production of fertilisers, and many other branches of science.

Though a number of grazing experiments carried out since the War have merely confirmed the soundness of what was formerly regarded as good practice, the publication of the results of so many experiments has assured a wide diffusion of knowledge.

This conjoint action is just as it should be; it remains for the farmer to reap the benefit of that varied effort on his behalf.

NOTES AND SELECTED REFERENCES.

1. That early cutting affects the richness of plants in protein has been strikingly shown for lucerne and clover by C. J. Willard (*Journal of the American Society of Agronomy*, Vol. 23 (1931) pp. 754-756). Most analyses, *e.g.*, those given by Henry and Morrison in their standard work "Feeds and Feeding," indicate that lucerne hay has a much higher protein content than red clover hay and Willard stated that ordinary [American] farm experiences bear out that idea. He found however, from 17 comparisons, made during five years, upon hay obtained by cutting lucerne and clover *early* in the season, that the crude protein percentage was practically identical in the two legumes, with means of 16.7 and 16.6 per cent., respectively.

Willard concluded: "The commonly accepted and reported difference in protein content between red clover and alfalfa [lucerne] is due largely, if not entirely, to the fact that alfalfa is usually cut earlier in the season and at an earlier stage of maturity than red clover."

2. A useful summary of the present position of grass-drying problems is the pamphlet: "Report on The Preservation of Grass and Other Fodder Crops": A.R.C. Report Series, No. 1; H.M. Stationery Office, 1935 (1s. 0d.).

3. Hugh Nicol: "Rothamsted Experiments on Residual Values of Leguminous Crops." *Empire Journal of Experimental Agriculture*, Vol. 1 (1933), pp. 22-32.

This account summarises experiments made with several legumes during the period 1899-1923. The residual manurial value of lucerne was greatly superior to that of any other crop tested; it was not obscured by the addition of artificial fertilisers.

4. In fallow garden or field soil there are between one and five *thousand million* bacteria per gram of dry soil. A gram is about a saltspoonful. Freshly manured soil contains still more numerous micro-organisms. It has only lately been found that the numbers of soil bacteria are so vast. The bacterial numbers formerly recorded were only about 20-40 millions per gram. Soil is evidently much more potent, biotically, than it was presumed to be in the beliefs of ten years ago.

In addition to the bacteria there is in soil an army of other micro-organisms—actinomycetes, fungi and protozoa of various kinds—constantly engaged in processes of decomposition and building up.

5. For further discussion of "The Interactions of Leguminous Plants and of Non-leguminous Plants growing with them" see the section by Sir E. J. Russell, pp. 199-204, in the "Farmer's Guide to Agricultural Research in 1934," *Journal of the Royal Agricultural Society of England*, Vol. 96, 1935.

6. Heavy harrowing is usually required to produce much change in unsatisfactory (acid) grass fields, and slag is generally required as well.

7. Much valuable information respecting the management of grassland will be found in the *Report of the Third Grassland Conference of the North and Central European Countries*, held in Switzerland in 1934. Published by Eidg. landwirtsch. Versuchsanstalt (Swiss Federal Agricultural Experiment Station), Zürich-Oerlikon.

Regarding clover, for example, see the paper by Professor R. G. Stapledon, pp. 186-193 of that volume: "White clover as a factor in the improvement of grassland and in its relation to the feeding properties of the sward." Professor Stapledon stresses the value of clovers, not only as accumulators of nitrogen, but also as accumulators of lime. The preceding paper (p. 179) by H. N. Frandsen, of Denmark, on "Some results of experiments with white clover in mixture with grass on permanent pastures" (German, with English summary) may be consulted with profit, as may the German paper by A. Elofson, of Sweden, on the management of meadows (pp. 132-150, with long English summary). The section on "Crop and Plant Breeding" (esp. pp. 1-21) by G. D. H. Bell, in the R.A.S.E. "Farmer's Guide" will be found very instructive. Professor Stapledon has just published an interesting book: "The Land Now and To-morrow," wherein clover is much discussed.

8. Results are given in full in the Rothamsted Experimental Station *Reports* for 1931, 1932 and 1933. A few results are tabulated in the article by Hugh Nicol, "Leguminous and Mixed Crops: Some Important Consequences": *The Fertiliser, Feeding Stuffs and Farm Supplies Journal*, Vol. 20, 1935, part 19, p. 550.

9. See the paper by Elofson, (ref. 7 above) and the paper in the same volume, pp. 150-154, by A. Riedle, of Germany. Elofson found that mowing and grazing in alternate years produced the greatest number of feed units; Riedle also recommends that alternation, as do M. Lorch (pp. 158-164) and K. Weller (pp. 164-173).

10. Conditions necessary for producing and best utilising the early bite are well set forth by H. J. Page in his paper "The influence of manuring and other factors on the productivity of pastures." (*Report Third Grassland Conference*, 1934, pp. 65-75). See also the remarks of W. Davies, p. 130.

11. Evidence to the contrary effect has been put forward, but most experience leads to the conclusion given in the text. Dung, however, seems to be beneficial, rather than harmful, to clover.

12. In the intensive agriculture of Denmark and Flanders, liquid manure is usually applied to the arable land. This fact, however, does not necessarily imply a special acuity of Danish and Flemish farmers, since permanent grass is not a feature of their agriculture.

13. Probably the most thorough study of the methods of *distributing* liquid manure from vehicles is that made by H. Rheinwald and G. Preuschen (*Landwirtsch. Jahrbücher*, Vol. 81, (1935), pp. 691-741, with 48 Figures—largely photographs of carts, spreaders, and drills). The authors point out that (in Germany) the use of liquid manure is on the increase: new storage tanks are being built, and old ones are being renovated. The authors thought it timely to undertake a study of the best methods of utilising the liquid which had had so much pains expended upon its storage. They write mainly from the standpoint of farm engineering (design and employment of spreaders and drills) but their agronomic conclusions are similar to those of the present author. It is significant that they suggest only a restricted use of liquid manure upon grassland. Their programme entails six periods of application of liquid manure: February—March, broadcast or drill to winter corn; April, broadcast on root land; May—June, drill to root crops; August—September, broadcast on stubbles; October—November, broadcast before sowing winter corn; December—January, broadcast on grass. This programme calls for tank storage for only two months' output of liquid manure.

Danish work during a number of years suggests that the best results from liquid manure are obtained by its application as follows: to roots, April—July; to rye, February—March; to grassland, December—April.

14. A description of a suitable method was given by E. H. Richards and M. G. Weekes in *Proceedings of Engineering Conference, Institute of Civil Engineers, Section VI.*, (1921).

A diagram of the simple erection required is to be found in the specification of B. P. 152387 (1919). The process of Richards and Weekes was originally devised for the disposal of strong sewage from cantonments, but is equally applicable to any other urinous waste. The process is straightforward and does not easily go wrong.

15. J. B. Boussingault, "La Fosse à Fumier." Paris: Béchet Jeune, 1858.

DAIRYING IN THE THAMES AREA

By James Mackintosh, O.B.E., N.D.A., N.D.D.

An Account of Dairying in the Counties of Berkshire, Buckinghamshire and Oxfordshire.

General.—The area covered by the three counties dealt with in this account consists mainly of the valley of the Thames and its chief tributaries, the Colne, the Thame, the Cherwell, the Evenlode and the Windrush on the left bank, and the Loddon, the Kennet and the Ock on the right bank, together with the watersheds between these rivers. The soils are very diverse in character, ranging from the porous and unproductive Bagshot Sands in the east of Berkshire, through the mixtures of the Reading Beds, the hilly areas of the Berkshire Downs and the Chiltern Hills in South Oxfordshire and South Bucks., the extensive tracts of the Gault, Oxford and Kimmeridge clays in all three counties, to the irregular and highlying Stonebrash soils of West Oxfordshire. In the river valleys there are wide stretches of alluvial deposits which vary from light gravels to the fertile loams of South Bucks.

Counties with so great a natural variation in soil and a rainfall averaging 25 to 30 inches naturally exemplify a wide range of farming practice and in the Agricultural Surveys of the early part of the 19th century the area as a whole was more noted for arable cultivation and sheep than for cows and other cattle. In some districts, however, notably the Vale of Aylesbury in Bucks. and the western end of the Vale of the White Horse in Berkshire, the farms were largely devoted to dairying, and the production of butter and cheese for the London market was the main source of income.

Early Accounts of Dairying.—Mavor, in his Report on the Agriculture of Berkshire published in 1813, says that in the vicinity of the towns cows are generally kept for the sake of making butter and that much butter is sent to London. "The best butter, or reputed as such, is made about Wytham, Radley and other parishes on the Berks. border near Oxford, where the land is good." In those days butter was sold at 1s. to 1s. 3d. per lb. wholesale and at 1s. 3d. to 1s. 6d. per lb. to the consumer.

The same writer also states that "in the dairying tract, properly so called, which lies . . . . chiefly within the hundreds of Shrivenham and Faringdon . . . . . . very large quantities of cheese are made during the summer." This cheese, with additional quantities from adjacent parishes in Wiltshire, was sent to London from the wharf at Buscot and it was estimated that the quantity made in Berkshire "cannot amount to less than 1,000 tons annually at the lowest calculation, allowing each cow to produce 4 cwt." The usual number of cows in a dairy was 20 to 60, and at one farm in Coleshill parish about 100 were kept. The cheese made was of the type known as single Gloucester, and the average weight was 12 to 14 lb. The dairies were noted for their cleanliness and neatness, and on some farms special cheeses were made. "Snowswick, in the parish of Buscot, is famous for cheeses in the shape and external figure of pine apples—about 5 lb. weight."

By the middle of last century the making of cheese appears to have decreased, for Spearing, in his Essay on the Agriculture of Berkshire, published in 1860, does little more than mention the existence of dairies in the Vale district, adding that most farmers rear a few calves, but generally these are sold when ten days old, the cow calves being bought by dealers to send back to the districts—Warwickshire and the Midlands—from whence they obtain the heifers in calf; in some instances the calves were repurchased when rising three years old. The cattle were then mostly of the Shorthorn or Durham breed, without regard to pedigree.

Cheesemaking on the Berkshire farms appears to have been discontinued between 1870 and 1880. Orr, in his "Agriculture in Berkshire," refers to a conversation with a farmer at Stanford-in-the-Vale who said his father gave up cheese-making previous to 1879 because of the difficulty of getting dairymaids to make cheese and the increasingly attractive market for whole milk.

Buckinghamshire, in contrast to Berkshire, was known throughout the latter part of the eighteenth century and the first half of the nineteenth for the quantity and excellence of its butter. The butter-making farms were situated chiefly on the second class pasture land of the Vale of Aylesbury and adjacent districts. The richest grazing land was used for the fattening of bullocks. Priest, in his "General View of the Agriculture of Buckinghamshire," published in 1813, gives an account of the equipment of the butter-making dairies. His description contains one sentence which deserves to be rescued from the dust of bygone days—"The dairies of all the farm-houses in Bucks. are particularly worthy of notice for their capaciousness, neatness and cleanliness. They are in general oblong buildings, that is, parallelipidons." Butter made in a parallelipidon surely earned a good reputation. The milking was done almost entirely by men and the milk was set for the cream raising in large shallow leaden vessels, known as "leads" measuring some 4 feet by 3 feet and in which the milk stood to a depth of 4 inches. On at least one farm in the Vale of Aylesbury these "leads" are still to be found around the walls of the dairy. Large churns capable of making 100 lb. butter or more at a time were used, and these were turned by a horse gear.

Read, in his essay on the "Farming of Buckinghamshire," published in 1855, states that Bucks. was the greatest butter-producing county in England. He estimated that some 120,000 acres were devoted to dairying, 30,000 cows kept and at 200 lb. each the total annual output was about 2,680 tons. The milk was skimmed at intervals of 12 hours; in summer no more than two skimmings were possible, but in winter three or four skimmings were made. The cream was churned twice weekly and the butter taken from the farm to London by carrier. The skim milk was mainly used for pig-feeding. Read also notes that the cows kept were principally Shorthorns, mostly imported as three-year-old heifers from Yorkshire and Lincolnshire and after being milked for some three years, the best were sold to dealers to supply the London dairies. One herd of Alderneys maintained at Little Horwood was famous for many years and supplied butter to the Royal Household.

Buttermaking was apparently continued in this district on a large scale until towards the close of the nineteenth century. Morton, writing on Dairy Farming in 1878, gives a description of the methods adopted and states that Aylesbury butter commands the highest price in the market.

The early records of dairying in Oxfordshire are less definite than those of Berks. and Bucks. Buttermaking was practised as in Bucks. on farms situated on the clay soils of central Oxfordshire. Young, writing in 1807, says that "waggons go from Bicester to London with butter, taking 10 tons per week, chiefly loaded between Bicester and Wheatley." Read, in his "Report on the Farming of Oxfordshire, published in 1854, also refers to the butter production on the clay soil farms, the butter being principally sent to London in waggons by carriers "because there are so many transferences on the railroad." He adds that "a good cow when fresh will give 20 quarts per day and 5 lb. butter per week for nine months is a good average," also that "the county was formerly celebrated for the production of veal but this is now confined to a few farmers as the manufacture of butter, though more troublesome, has of late been more profitable."

In the dairy herds of the early nineteenth century the cows were mainly of Shorthorn type, but earlier records show that in some districts with poorer soil, cows of the Longhorn breed were preferred and it was not uncommon to find one or more Alderneys in the buttermaking herds.

Changes in Cultivated Areas and Permanent Grass.—The area covered by the three counties under consideration is given in the Agricultural Statistics for 1934 as 1,414,701 acres, to which each contributes approximately the same acreage, namely, Berkshire, 460,730 acres; Buckinghamshire, 477,354 acres, and Oxfordshire, 476,617 acres. Of the above total 1,069,976 acres (76 per cent.) are under crops and grass and roughly one-third is under arable crops and two-thirds is under permanent grass.

Since the annual returns were first published in 1866 there have been notable changes in the acreage under crops and grass. For about twenty years the annual returns showed an increase under these headings, amounting to about 9 per cent. This increase was attributed partly to greater accuracy in the annual returns and partly to the reclamation for tillage purposes of land previously classified as rough grazings or moorland. From about 1885 onwards the acreage under crops and grass has shown a steady decrease, amounting in all to some 134,000 acres or fully 11 per cent. The increase previous to 1885 was almost the same in each of the counties, but the decrease has been unequal, namely, Berkshire 16 per cent., Bucks. 7 per cent. and Oxfordshire 10.5 per cent. This decrease has most probably been due to land falling back into the category of rough grazing and to marked growth of building schemes around the larger towns.

The relative proportions of land under permanent grass (whether mown or grazed) in 1866 and in 1934 are also worthy of notice. In Berkshire in 1866 the proportion of permanent grass was only some 28 per cent. of the total cultivated area, and by 1934 it had increased to 61 per cent. In Oxfordshire a similar change-over has taken place, namely, from 32 per cent. to 62 per cent. In Bucks, the proportion under permanent grass has always been higher—a factor no doubt associated with the greater production of dairy produce in this county already referred to—and the increase from 1866 to 1934 has been from 45 per cent. to 80 per cent.

Changes in Cow Population.—The collection of data on the cattle population of this country was begun in 1866, and a study of the changes which have taken place since that date throws an interesting light on the development of dairying. Taking the three counties together the total number of dairy stock, that is, cows in milk and dry and heifers in calf, in 1866 was 51,052 and the total number of cattle was 123,604. By 1934 these numbers had grown to 116,923 and 259,831 respectively, or increases of 129 per cent. and 110 per cent., which figures show a slight increase in milking stock in relation to the cattle population as a whole.

When the counties are considered singly, however, it is found that the rate of increase varies appreciably. Bucks., with its large butter industry still flourishing in 1855, shows the largest number of dairy cattle, namely 23,473, and by 1934 this number had risen to 42,977—an increase of 83 per cent. Oxfordshire had 14,479 cows and in-calf heifers in 1866 and 35,405 in 1934, an increase of 144 per cent., while Berkshire, which had the smallest dairy stock, shows the greatest actual and relative increase, namely from 13,100 to 38,541, equal to 194 per cent.

These figures, although sufficiently striking, do not give an adequate picture of the recent rate of increase in the dairy stock. The period covered between 1866 and 1934 is 68 years which may be taken as representing thirteen periods of five years each. The average rate of increase for each five-year period, when compared with the rate of increase during the latest five-year period (1930 to 1934) shows, during the latter, a definitely greater rate of increase. The following figures illustrate this point :—

RATE OF INCREASE IN DAIRY STOCK.

	Berks.	*Bucks.*	*Oxon.*
	per cent.	*per cent.*	*per cent.*
Average increase per 5 year period from 1866 to 1934	15.0	6.4	11.0
Increase during 5 year period, 1930-1934	29.0	22.3	28.0

In spite of the marked increase in dairy stock shown above, none of the counties can be considered to be densely populated by dairy cattle compared with other counties in England which are regarded as specially devoted to dairying. The density of cow population is shown in the following table : —

COW POPULATION PER 1,000 ACRES OF CROPS AND GRASS.

Year.	*Berks.*	*Bucks.*	*Oxon.*	*Cheshire*	*Staffs.*	*Somerset*	*England & Wales*
1866-67	38	61	37	134	110	116	64
1930 ...	93	95	70	261	188	170	105
1934 ...	122	118	91	307	217	190	120

NOTE.—Cow population includes cows in-milk and dry and heifers in-calf.

From the above comparative figures it appears that the number of dairy stock per 1,000 acres in the Thames Valley area in 1930 was somewhat under the average for the country, whereas by 1934 the numbers in Berks. and Bucks. agreed closely with the country's average, while the numbers in Oxfordshire did not attain the same density.

Development of Milk Production for Sale.—During the latter third of the nineteenth century the sale of liquid milk from the farms to supply the needs of the large cities gradually developed. When the dairy herds in and around London became unable to supply a sufficient amount of liquid milk to meet the demands of the rapidly growing city, it was a natural development to obtain supplies from farms at a greater distance. This transportation of milk from country to city was made possible by the rapid growth of the railway system, and facilitated by the introduction of milk coolers on the farms so that the milk could be cooled before dispatch. Obviously, transport by road and river for a considerable distance was not suitable to a perishable article such as milk, though quite suitable for Buckinghamshire butter and Berkshire cheese, and, in so far as the sale of milk was more profitable than the manufacture of butter and cheese, farmers who could readily dispatch their milk to the cities changed over to this system.

Another circumstance which encouraged the sale of milk from farms within easy reach of London was the devastating effects of cattle plague in the town dairies in 1866 and 1867. Morton, in an article on "Town Milk," published in 1868, states that in 1866 about 24,000 cows were kept within the metropolitan district and that the produce of an additional 3,000 to 4,000 cows was required to meet London's needs for milk. He adds that "during the cattle plague more than half of the 24,000 London cows disappeared, and the railway delivery of milk rapidly increased" and continues "so large an increase in the quantity of milk brought up to town as took place during the cattle plague indicated of course a very considerable alteration in the management and industry of many a dairy district. And as the facilities offered by the London railways increase and the methods of transmitting milk with safety are improved, so no doubt we may expect an extension of the trade between the London milk dealer and the country dairy farmer." This prophecy of Morton's some sixty years ago has been fulfilled to the letter.

The tendency to produce milk for direct sale was again stimulated by the agricultural depression which began about 1880. The returns from arable land were diminishing on the one hand and, on the other, the sale of milk, though involving more worry and continuous attention to detail, provided a regular monthly income, hence a steadily increasing number of farmers took up milk production. This change-over was associated with the laying down of much arable land to permanent grass, and involved alterations to farm buildings to adapt them for the accommodation of a dairy herd and the handling of milk. During the war period there was a temporary increase in the acreage under arable land and a check to the increase in the numbers of dairy stock, but since 1921 the production of milk for sale has been taken up on more and more farms and, as the figures quoted in Table I and II show, this development has attained its maximum during the last five years.

Equipment for Milk Production—Cowsheds and Dairies.—Farm buildings are usually structures of a more or less permanent nature and when the system of farming is changed it may not be an easy matter to adapt the buildings for new uses. This difficulty has arisen on a very large proportion of the farms in Berks., Bucks. and Oxon., where milk production has been undertaken. Further, on the farms which had at one time been devoted to buttermaking and cheesemaking, the accommodation for the cows at milking time and for the handling of the milk was not of such a type as facilitated the production of a milk of good keeping quality. Also the supply of water for cooling milk was often insufficient in amount and at too high a temperature during the summer months to give good results.

The cowsheds throughout the three counties fall generally into one of four groups :—(*a*) those which have been in use as cowsheds since the middle of last century, (*b*) those where a range of stalls originally intended for housing fattening cattle has been adapted for cows, (*c*) where a large shed or barn originally intended for grain crops has been fitted with stalls, (*d*) cowsheds of recent construction built according to modern principles.

The cowsheds in the first group are mostly to be found in Central and West Bucks. and were usually constructed to hold one row of cows ; often there were no stall divisions and fodder was given in a high manger to which the cows obtained access through wooden stanchions or yokes of particularly solid construction. The floor was usually rammed earth with little facilities for drainage. Often, however, on such farms the cows were only in the sheds at milking time unless in the severest weather. In the districts in Oxfordshire where butter was made, Read states that the cows were " in the meadows all winter as there are hardly any sheds for their accommodation " and on some farms the sheds were at a distance from the house. The degree to which sheds of the above type could be adapted to modern needs has naturally varied from farm to farm ; sometimes the shed could be improved and used as a milking shed at little cost but in other cases reconstruction on a large scale was, and still is, necessary. The old dairies have in some instances been converted into commodious and satisfactory cooling rooms but in others new buildings in a more convenient position are needed, The cowsheds which were formerly stalls for fattening cattle are often situated round one or more sides of a yard, and were frequently too narrow to allow sufficient space behind the cows. Light and ventilation were also insufficient in winter and the most serious defects were the absence of stall divisions, the high manger fronts, and long standings with a shallow gutter (or without any gutter) which together led to the fouling of the rear part of the stall and of the cow's hindquarters when she lay down. As a rule, also, the floor was uneven and the drains from the cowshed led to the yard. The yard itself was usually in a very dirty state, often containing manure heaps with pools of liquid manure.

Many such sheds have been greatly improved by lowering the manger fronts, raising the stalls for some 5 ft. to 5 ft. 6 ins., and cementing a gutter behind the stalls and a path between the gutter and the wall. Where also water has been laid on, good drainage outlets made, adequate light and ventilation provided, old sheds have been brought to a state of reasonable compliance with present day requirements. There are, however, some dairy homesteads of the older type, where, by reason of the original dimensions of the sheds, the position in a hollow and the practical impossibility of obtaining satisfactory drainage, conversion to a condition which will render them suitable for the production of milk fit for liquid consumption is well-nigh impossible.

On many such farms the cooling of the milk was carried out under adverse conditions. No suitable building with protection from dust and dirt was available for accommodating the cooler or for the washing of the milk utensils. This defect has on many farms been overcome by fitting up an adjacent shed or by the erection of a small dairy in a convenient position.

The adaptation of large barns for use as cowsheds has occurred mainly on farms which at one time had a considerable proportion of arable land. Buildings of this type are to be found on many farms which commenced cow-keeping during and after the "eighties" of last century. By reason of their high roofs, such barns usually have ample air space and adequate light is not difficult to obtain by fitting sufficient windows in the sides or roof. The arrangement of stalls has depended on the internal dimensions and considerable variation is found. In some instances, stalls holding one, two or more cows, according to the position of the internal buttresses, have been placed with the mangers round the walls and an open floor space in the middle ; in others, two rows of stalls have been put up along the length of the barn, with a feeding passage in the middle and a milking gangway at each side, and in others the stalls have been arranged in rows across the length of the barn and in such cases feeding gangways have sometimes been fitted in between two rows ; sometimes only a portion of the barn has been fitted with stalls and the remainder consists of loose boxes or food stores, also occasionally lean-to sheds for cows or other stock have been built against the most convenient outside wall. Generally the dimensions of the stalls, the drainage arrangements and the floor are more in keeping with modern requirements than the single row sheds described above, and indeed, a considerable number of such barns have been converted into excellent cowsheds. The situation of these barns is usually such as to permit satisfactory removal of drainage to lower ground and the surrounding yards can more easily be kept in a reasonably clean condition.

The facilities for cooling the milk and washing the utensils vary considerably and again the most satisfactory equipment is found where a new building has been erected for these purposes.

The proportion of cowsheds of modern construction is steadily, if slowly, increasing. The majority of these are well built and fitted internally with low mangers, stalls of the right length and good drainage. Sometimes yoke ties are preferred, but in others chain ties have been retained though the stall divisions are of tubular iron. Usually also a dairy has been erected with two rooms—one for cooling and storing the milk and the other for washing and sterilising the utensils. A boiler is usually accommodated in an adjacent shed.

A general survey of the cowsheds throughout the area leads to two conclusions. Firstly, that if milk production for the liquid milk market is to continue at or above its present level, there is great need for further renovation and reconstruction, and, secondly, that adaptation of buildings originally designed for other purposes has been carried out economically and skilfully with highly satisfactory results.

Breeds of Cows kept.—No one of the numerous breeds of cattle found in England have their origin in Berks., Bucks. or Oxfordshire, and indeed all the early writers refer to the importation of down-calving cows and heifers from other counties to maintain the herds. In the beginning of the nineteenth century cows of the Longhorn type were found on many farms, especially those with poorer land, but by the middle of the century the dairy herds consisted mainly of cows of Shorthorn type, and this preference no doubt accounts for the large proportion of Dairy Shorthorn herds at the present time. At no time was there any appreciable number of pedigree Shorthorn herds. A well-known herd was for many years maintained at Sarsden in Oxfordshire, later the herds at Kelmscott in Oxfordshire and Hambleden in Bucks. played a notable part in Dairy Shorthorn history and to-day pedigree herds are fairly numerous. There are also a large and steadily increasing number of herds being graded up for entry in Coates's Herd Book, and in respect of type, production and management many of these compare favourably with those consisting entirely or mainly of pedigree stock.

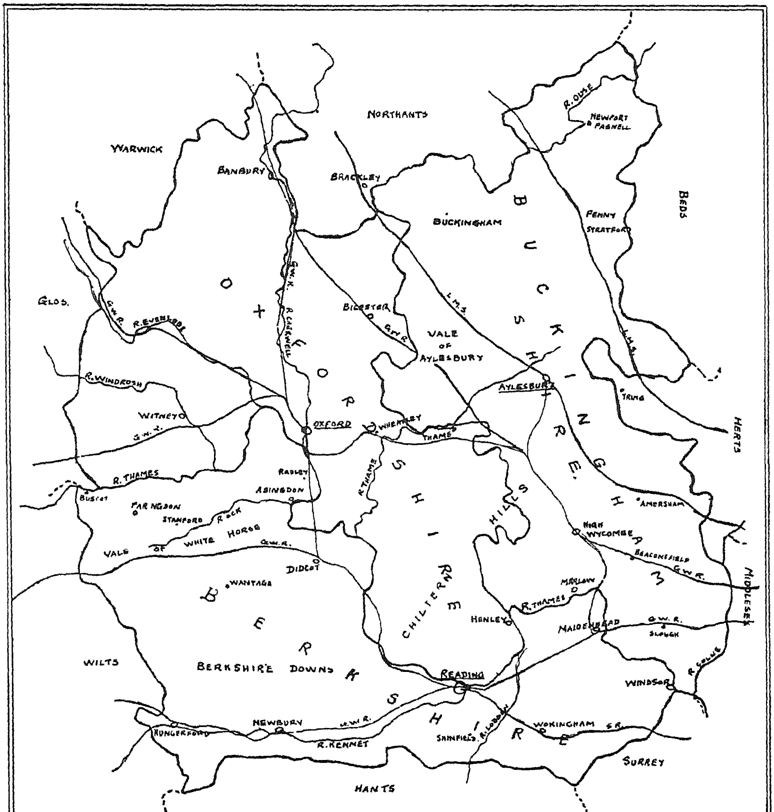
Of the other dairy breeds, the Guernsey appears to have made most progress in recent years. Last century it was noted that many of the buttermaking herds had one or more Alderneys, but the name "Alderney" was then applied without discrimination to any animal of Channel Island origin. A few herds of Jerseys have been maintained for many years but the Guernsey has gained and continues to hold a place as a useful commercial breed in the production of milk for sale as well as in the production of cream and butter.

During the last twenty years a number of Friesian herds have been established, but this breed has not become as popular in the Thames area as in several other districts. More recently herds of Ayrshires have been formed and this breed has apparently become acclimatised in a satisfactory manner. A few Red Poll herds are also to be found.

Reference has been made to the maintenance of herds by heifers from the Midlands. This practice may still continue to a small extent, but until recent political difficulties arose, large numbers of heifers were imported from Ireland and distributed amongst many of the herds. At the same time, the practice of rearing calves on the farm has gradually increased and many herd owners are now aiming at breeding, instead of buying, a larger proportion of the heifers needed to maintain or increase their herds. With the development of breeding and rearing, much greater care is now given to the selection of stock bulls.

The improvement of dairy herds has been general on the whole, but there are numerous exceptions on small farms, where the increase in population in the district has been such as to warrant the sale of milk direct to the consumer. This practice has grown mainly in the south-east of Bucks. and the east of Berkshire and the variety of breeds and crosses which can be found in a small herd is remarkable. One former owner used the graphic description "Heinz herds—57 varieties." There is no doubt that such mixed herds produce an eminently saleable milk, showing a good depth of cream, and in this respect meet their owner's needs, but they also constitute a problem in the improvement of our dairy live stock. The problem is not solved by the licensing of bulls, because a large proportion of the calves in such herds by any breed of bull will be undesirable mongrels. One solution would be to maintain herds of either of the Channel Island breeds, but an adequate supply at a suitable price cannot at present be obtained.

Systems of Herd Management.—There are few outstanding features to be noted in the general management of the dairy herds. The main object is to produce a fairly uniform quantity of milk month by month, and to attain this end calving is distributed throughout the year, with a large proportion in the autumn and as few as possible in early summer. During summer the cows are at pasture day and night, and during the winter the majority of herds are turned out during the daytime and housed at night. In certain districts, however, where the soil is dry and there is good shelter, it has long been the custom to keep the cows out day and night during the winter also. There are very few " bail " herds in the area.



SKETCH MAP SHOWING COUNTY BOUNDARIES CHIEF TOWNS, RIVERS AND RAILWAYS.

The methods of feeding vary according to the type of farm. Where the land is all in grass, the maintenance ration consists solely of hay and, for production, concentrates, often in cube or or nut form, are purchased. Where there is a proportion of arable land, hay, straw, kale, cabbage and mangels are used for maintenance purposes and home-grown grain, including beans in some districts, is supplemented by a wide variety of concentrates to obtain the production part of the ration. A sound knowledge of up-to-date methods of feeding is widespread and in this respect the general practice attains a high level.

Milk Recording.—Organised milk recording was introduced into the district around Reading in 1912 by the Reading University College (now the University of Reading). During the first year twelve farms formed a circuit and in 1913, when financial assistance was forthcoming from the Bucks. County Council and the Berkshire Agricultural Instruction Committee, the number of farms taking part in the scheme was increased to 41. In addition to checking the milk records of the cows in the various herds, testing samples of milk for butter fat and the marking of calves, careful records were kept of the food consumed and each farmer received monthly and annually statements of the cost of food in the production of milk on his farm. This aspect of the work supplied information on both methods and results which proved of great value during the control of milk prices arising from the War.

Milk recording under the Scheme introduced by the Ministry of Agriculture in 1914 was not begun in Berkshire until 1918, when financial assistance from the County Councils to the College Scheme ceased. Societies under the Ministry's auspices were formed in Oxfordshire in 1915 and in Bucks. in 1920. Since their formation each Society has materially increased its activities and sphere of influence.

The membership of each County Society, according to the report issued by the Ministry of Agriculture for the year ended October 1st, 1934, was as follows :—Berkshire, 164 members recording 193 herds with a total of 7,011 cows ; Buckinghamshire, 93 members recording 101 herds with 2,863 cows, and Oxfordshire, 91 members recording 98 herds with 3,275 cows. The average milk yields for the full-year cows in each Society were :—Berks., 6,895 lb. ; Bucks., 7,256 lb. ; and Oxon., 7,062 lb. The average for all full-year cows recorded in England and Wales was 7,272 lb., but in this connection it should be noted that the proportion of cows recorded in England and Wales is only 5.5 per cent., whereas the proportion in the three counties is 14 per cent. (Berks., 23.2 per cent. ; Bucks., 8.3 per cent. and Oxon., 11.7 per cent.).

Improvements in Milk Production—Graded Milks.—In each of the three counties marked progress has been made since the War in improving the methods of milk production and handling. In this work the Agricultural and Dairy Advisory Staffs of the respective counties have played a most important part, and have carried out their duties with due regard to the advice most suited to the conditions on the different types of farms.

The degree of success attained cannot be measured in a uniform manner; Berkshire has won the Stapleton Cup—the premier award in the Inter-County Clean Milk Competition—in three successive years and a sentence in the official report of the 1930-31 competition is worthy of quotation here. "In Berkshire a very full programme (of instruction) has been carried out, not for twelve months, but for five years, and it says much for the zeal and enthusiasm of the staff that each year has shown a substantial increase in the number of marks obtained in the competition." Buckinghamshire cannot produce so spectacular a result, but the County Clean Milk Competitions have been highly successful and more advisory work on the management and improvement of dairy herds has been carried out. In Oxfordshire instruction in the basic operation of milking has been given most successfully and often under conditions which at the beginning, could fairly be described as disheartening to milkers and instructors alike.

In all the counties, as a result of co-operation between the educational staff, the farmers and several large buyers of milk, bonus schemes for extra payments in respect of milk of higher hygienic quality were brought into operation during the last ten years. The introduction in 1935 by the Milk Marketing Board of the Accredited Producers Roll Scheme has made it possible for all farmers attaining the required standard to gain a bonus, and this scheme has made good progress. The number of producers entered on the Roll in each county on March 1st, 1936, was as follows:—Berks., 259; Bucks., 124; Oxfordshire, 158.

Progress towards the higher standard required in order to obtain a "Certified" or "Grade A (Tuberculin tested) Milk" licence has naturally been much slower. By reason of special circumstances, which encouraged the production and sale of Grade A (T.T.) Milk in Berkshire, more licences have been issued in this county than in others. The approximate numbers for each county at the end of 1935 were:—Berks (Certified 7, Grade A (T.T.), 34; Bucks., Certified 6, Grade A (T.T.) 8; and Oxfordshire, Certified 2, Grade A (T.T.) 20.

The formation of "Attested Herds" under the scheme introduced by the Ministry of Agriculture in February, 1935, for the

The methods of feeding vary according to the type of farm. Where the land is all in grass, the maintenance ration consists solely of hay and, for production, concentrates, often in cube or or nut form, are purchased. Where there is a proportion of arable land, hay, straw, kale, cabbage and mangels are used for maintenance purposes and home-grown grain, including beans in some districts, is supplemented by a wide variety of concentrates to obtain the production part of the ration. A sound knowledge of up-to-date methods of feeding is widespread and in this respect the general practice attains a high level.

Milk Recording.—Organised milk recording was introduced into the district around Reading in 1912 by the Reading University College (now the University of Reading). During the first year twelve farms formed a circuit and in 1913, when financial assistance was forthcoming from the Bucks. County Council and the Berkshire Agricultural Instruction Committee, the number of farms taking part in the scheme was increased to 41. In addition to checking the milk records of the cows in the various herds, testing samples of milk for butter fat and the marking of calves, careful records were kept of the food consumed and each farmer received monthly and annually statements of the cost of food in the production of milk on his farm. This aspect of the work supplied information on both methods and results which proved of great value during the control of milk prices arising from the War.

Milk recording under the Scheme introduced by the Ministry of Agriculture in 1914 was not begun in Berkshire until 1918, when financial assistance from the County Councils to the College Scheme ceased. Societies under the Ministry's auspices were formed in Oxfordshire in 1915 and in Bucks. in 1920. Since their formation each Society has materially increased its activities and sphere of influence.

The membership of each County Society, according to the report issued by the Ministry of Agriculture for the year ended October 1st, 1934, was as follows :—Berkshire, 164 members recording 193 herds with a total of 7,011 cows ; Buckinghamshire, 93 members recording 101 herds with 2,863 cows, and Oxfordshire, 91 members recording 98 herds with 3,275 cows. The average milk yields for the full-year cows in each Society were :—Berks., 6,895 lb. ; Bucks., 7,256 lb. ; and Oxon., 7,062 lb. The average for all full-year cows recorded in England and Wales was 7,272 lb., but in this connection it should be noted that the proportion of cows recorded in England and Wales is only 5.5 per cent., whereas the proportion in the three counties is 14 per cent. (Berks., 23.2 per cent. ; Bucks., 8.3 per cent. and Oxon., 11.7 per cent.).

Improvements in Milk Production—Graded Milks.—In each of the three counties marked progress has been made since the War in improving the methods of milk production and handling. In this work the Agricultural and Dairy Advisory Staffs of the respective counties have played a most important part, and have carried out their duties with due regard to the advice most suited to the conditions on the different types of farms.

The degree of success attained cannot be measured in a uniform manner; Berkshire has won the Stapleton Cup—the premier award in the Inter-County Clean Milk Competition—in three successive years and a sentence in the official report of the 1930-31 competition is worthy of quotation here. "In Berkshire a very full programme (of instruction) has been carried out, not for twelve months, but for five years, and it says much for the zeal and enthusiasm of the staff that each year has shown a substantial increase in the number of marks obtained in the competition." Buckinghamshire cannot produce so spectacular a result, but the County Clean Milk Competitions have been highly successful and more advisory work on the management and improvement of dairy herds has been carried out. In Oxfordshire instruction in the basic operation of milking has been given most successfully and often under conditions which at the beginning, could fairly be described as disheartening to milkers and instructors alike.

In all the counties, as a result of co-operation between the educational staff, the farmers and several large buyers of milk, bonus schemes for extra payments in respect of milk of higher hygienic quality were brought into operation during the last ten years. The introduction in 1935 by the Milk Marketing Board of the Accredited Producers Roll Scheme has made it possible for all farmers attaining the required standard to gain a bonus, and this scheme has made good progress. The number of producers entered on the Roll in each county on March 1st, 1936, was as follows:—Berks., 259; Bucks., 124; Oxfordshire, 158.

Progress towards the higher standard required in order to obtain a "Certified" or "Grade A (Tuberculin tested) Milk" licence has naturally been much slower. By reason of special circumstances, which encouraged the production and sale of Grade A (T.T.) Milk in Berkshire, more licences have been issued in this county than in others. The approximate numbers for each county at the end of 1935 were:—Berks (Certified 7, Grade A (T.T.), 34; Bucks., Certified 6, Grade A (T.T.) 8; and Oxfordshire, Certified 2, Grade A (T.T.) 20.

The formation of "Attested Herds" under the scheme introduced by the Ministry of Agriculture in February, 1935, for the official recognition of herds free from tuberculosis, has made slow progress everywhere. By October, 1935, only forty-one herds had become "Attested" in England and Wales. Of these, 3, including His Majesty The King's herd at Windsor, were in Berks., 2 in Bucks. and 1 in Oxfordshire.

Disposal of Milk.—The liquid milk trade absorbs by far the largest proportion of the milk produced in the Thames Area. London undoubtedly takes more than any other city, but centres of population such as Reading, Newbury, Windsor and Maidenhead in Berks., Aylesbury, High Wycombe and Slough in Bucks., and Oxford and Banbury in Oxfordshire are all markets of growing importance for wholesale supplies from farms. In Reading and Oxford up-to-date depots for distribution have recently been created by the respective Co-operative Societies. The above and other smaller towns and villages are also served by a considerable number of producer-retailers.

In the early years of this century milk from the country districts was conveyed to London and other centres by rail but at the present time collection by motor lorry also plays an important part. Usually the milk is collected by the buyers' lorries, but in some instances a group of farmers arrange for independent transport from their farms to their buyer's premises.

Owing to the proximity and ease of transport to cities and towns, factories and depôts for the manufacture of dairy produce are not numerous. There are, however, several which deal with considerable quantities of milk annually and those near the boundaries also take some milk from the adjacent counties. The chief are the (1) United Dairies factory at Buckingham at which are made condensed and dried milk products, (2) the United Dairies factory at Banbury at which cheese is made or milk is despatched to various consuming centres as required, (3) Nestlè's Milk Products factory at Aylesbury, formerly specialising in the manufacture of condensed milk but now devoted to cheesemaking or the supply of milk to the liquid milk market, (4) a recently established factory at Didcot in Berkshire where cream and butter is made and liquid milk market also supplied, (5) the Express Dairy Co.'s depôt at Faringdon in Berkshire, and (6) Messrs. Horlick's Malted Milk Factory at Slough in Bucks.

Dairy Education and Research.—An account of dairying in the Thames area, particularly when published in this Journal, must contain some reference to the British Dairy Institute.

This Institute was established by the British Dairy Farmers' Association near Aylesbury in Buckinghamshire, in 1888, and was the first centre in this country devoted to the instruction of resident students in the science and practice of the manufacture of butter and cheese. In 1896, in order to provide better scientific instruction, an agreement was made with the University College of Reading (now the University of Reading) and the Institute was moved to Reading and placed under the management of a Joint Committee. In 1910, a new Institute, with better equipment and accommodation for a larger number of students, was erected within the grounds of the University. Further additions have been made from time to time and for many years now the British Dairy Institute has been recognised as the leading centre for dairy education in England and Wales.

In 1912, when the Ministry of Agriculture decided to establish a centre for research in dairying, the success which had attended the development of dairy education at the British Dairy Institute and Reading University College contributed largely to the choice of the College as the home of the new Research Institute. At the beginning makeshift accommodation was provided near the College, but in 1920 a farm was obtained at Shinfield, and in 1923 the staff and equipment were moved to Shinfield. Since that year the National Institute for Research in Dairying has contributed largely to the development of the Dairying Industry, not only in the Thames area, but throughout the whole country.

NORTHERN IRELAND'S MILK MARKETING SCHEME

By G. Scott Robertson, D.Sc., Permanent Secretary, Ministry of Agriculture for Northern Ireland.

The passing of the Milk and Milk Products Act, which came into operation just over a year ago and which re-organised Ulster's milk industry, both "manufacturing" and "liquid," constitutes the biggest development in her important dairying industry which has taken place in recent times.

The Scheme differs in many important respects from those in operation in England and Scotland. For example, it is not a Scheme framed under the Agricultural Marketing Acts, there is no Producers' Board, and the Act brings both producers and distributors under a uniform system of control.

In order to understand the problem which the Milk and Milk Products Act seeks to solve it is necessary to understand some of the important respects in which the milk problem in Northern Ireland differs from that in England and Scotland.

When the English Milk Marketing Scheme was launched, roughly 70% of the milk produced went into the liquid trade and only 30% was utilised for manufacturing purposes. In Northern Ireland the position was the exact reverse, only 30% of the milk produced was sold on the liquid market and 70% was manufactured into butter either at Creameries or on the farm ; in the case of milk sent to Creameries the separated milk being returned to the farmer-suppliers for the rearing of calves and the feeding of pigs and to a lesser extent, poultry. Clearly, even if a pool price for all milk is desirable—a contention which is open to serious doubt—it was impossible to apply such a principle to conditions as they existed in Northern Ireland. Modern developments, particularly in the transport system, had rendered all milk, irrespective of distance, potential supplies for the liquid market, and it was clear that if some measure of security was to be given to those producers who catered specially and all the year round for the liquid milk market, some means must be devised, which were not to the prejudice of the public interests, of separating the two markets.

Separation of Liquid and Manufacturing Markets on a Quality Basis.

The method adopted has been to separate the two markets, liquid and manufacturing, on the basis of quality (cleanliness and healthiness) or, in other words, service to the consumer. The separation of the two markets, liquid and manufacturing, and the utilisation on the liquid market of the cleanest and healthiest supplies has obviously much to recommend it beyond the factor of marketing expediency. No marketing scheme for milk can afford to ignore the obvious necessity from a national point of view of increasing the consumption of liquid milk, the consumption of which is lamentably low in all parts of the United Kingdom. Price to the consumer is obviously a most important factor, but not the only one. Another of the major difficulties that all concerned with the production and marketing of liquid milk have to face is adverse medical criticism of the liquid supply (often inaccurate and misleading), and the fact that because of the methods of production and handling, milk when it reaches the consumer has such a short life that the housewife rarely buys more than can conveniently be consumed on the day of delivery. Clearly, if the desired object is to be achieved, both producers and distributors must come into a controlled or regulating system which has as one of its main objects improvement in the cleanliness of the milk supply and the confidence of the consuming public.

Under the Milk and Milk Products Act no farmer may sell milk on the liquid milk market unless he holds a licence from the Ministry of Agriculture for Northern Ireland, and no person may engage in the distribution of milk unless he holds a Distributor's licence from the Ministry.

GRADES OF MILK AND THEIR MEANING.

Since December 1934 the liquid milk supply has been divided into three grades named A, B, and C. All milk must be sold under its proper grade and no alternative to these designations or additions to them—with one exception which will be mentioned later—is permitted. The grade names have been chosen because of their merit of simplicity. There can be no confusion in the mind of any member of the public, as clearly A comes before B and B before C.

Grade A is equivalent to English Certified milk ; that is to say, it is milk of the highest standard of cleanliness bottled on the farm from cows which have passed the tuberculin test at six monthly intervals, tuberculin testing being done by the Ministry's Veterinary Officers free of charge to the producer. The bottles must be capped with green caps.

Grade B is roughly equivalent to what is known in England as Grade A. A bacterial count not exceeding 300,000 bacteria per cubic centimetre is prescribed, the dairy must be fitted with suitable sterilizing equipment, the cows are inspected at least twice a year by the Ministry's whole time Veterinary Officers and cows and byres must be kept clean to the satisfaction of these officers. All Grade B milk must be cooled to a temperature of not more than 60° Fahrenheit before leaving the farm. Also it must be bottled either on the farm or by the distributor and the bottles capped with brown or amber discs bearing the grade designation.

Grade C.—For this grade a keeping quality test has been instituted—the Methylene Blue Reductase test on broadly similar lines to its application to accredited milk in England. But beyond the fact that the dairy need not be fitted with sterilizing equipment all the other conditions, such as inspection of the cows for health and cleanliness, and byres for cleanliness and suitability by the Ministry's Veterinary Officers, apply. This milk may or may not be bottled, but if bottled the cap must be red and bear the grade designation.

All churns carrying B milk, whether distributors' or producers' churns, must be branded with the letter "B." Similarly, all churns containing C milk must be branded with the letter "C" in red and where C milk is delivered loose to the consumer, the delivery can and measure must also be branded with the letter "C" in red.

The Ministry has complete discretion with regard to the granting and revoking of producers' licences. Surprise samples of milk are taken regularly by the Ministry's Veterinary Officers and by special Milk Inspectors and forwarded to the Dairy Bacteriological Laboratory. Copies of the bacteriological report go to headquarters, the Ministry's Veterinary Officer for the district, and the producer concerned.

If an unsatisfactory B producer cannot be induced to mend his ways the B licence is withdrawn and a C licence may be granted. If a C licence is withdrawn the producer is automatically confined to utilising his milk on the farm or sending it to a Creamery for manufacturing purposes.

The fee for a licence is 2s. 6d. per annum and a producer's licence entitles the producer to distribute the milk he produces, but if he buys another producer's milk for purposes of re-sale he must take out in addition a distributor's licence.

DISTRIBUTOR'S LICENCE.

For a distributor's licence an annual fee of £1 is charged and a licence is granted only when the Ministry is satisfied with the applicant's premises, equipment, and methods, and may be revoked if any of these become unsatisfactory. The distributor's licence may also be revoked if he fails to comply with the terms with regard to price to the farmer or price to the consumer. As a condition of the licence the Ministry has access at any time to his premises and all records and books dealing with his business as a distributor of milk.

REFORM OF THE VETERINARY SERVICE.

Before dealing with the machinery of the Scheme it is desirable to deal at this stage with one other reform which it was necessary to carry through before a Scheme of this nature could function efficiently. Prior to the coming into operation of the Milk and Milk Products Act the control of cowsheds and dairies was, as in England, largely in the hands of part-time officers of local Authorities. The situation can only be described as highly unsatisfactory and at times bordering the farcical. In the majority of cases the part time local Veterinary Officer was a very efficient man, but his position as a part-time public officer was extremely difficult, if not hopeless. In certain rural areas the fewer reports sent in by the part-time local Veterinary Inspector the better pleased were certain members of the Council. Then again the part-time officer was dependent for his living, not on the relatively small salary or fee paid him by the local authority, but on his private practice amongst the farmers in his district, clearly an impossible clash of interests.

Prior to bringing the Milk Scheme into operation the Ministry discussed this aspect of the problem with Rural, Urban and County Councils and Borough Authorities, and secured their agreement to, and their co-operation in, the taking over of the whole public veterinary services of the Province. In accordance with arrangements which need not here be discussed the local authorities pay to the Ministry a sum equivalent in the aggregate to what local authorities were expending on their service and the balance of the sum required for a whole time service was provided by the Milk Fund into which the licence fees and levies payable on sales of milk, butter and margarine are paid.

It is perhaps desirable to mention at this stage that the veterinary inspection of cows by the Ministry's officers is not confined to herds producing milk for the liquid milk market but applies to all cows in Northern Ireland. In order to cope with this work the existing veterinary staff was increased by 32 whole-time and permanent officers. The six counties which comprise Northern Ireland have for the purposes of the Milk Scheme been divided into areas, each in charge of a veterinary officer of the Ministry. This may seem a relatively large addition to the veterinary staff, but some idea of the nature of the problem may be gained from the fact that there are considerably more agricultural holdings in Northern Ireland than there are in the whole of Scotland. It is a real pleasure to be able to record that, thanks to the willing co-operation of all concerned, the new system has worked smoothly and with clockwork regularity.

THE ADMINISTRATIVE MACHINERY.

As will be gathered from what has already been recorded, the Ministry is in charge of the administration and technical control of the Scheme. This may seem a peculiar feature to English and Scottish farmers. Its justification lies in the fact that before the Act was passed by Parliament every feature of it was discussed with the Ulster Farmers' Union, the Ulster Agricultural Organisation Society, and the Distributors' Association, and it was the unanimous desire of all that the Ministry should take control of the Scheme. Although the Ministry is responsible for the administrative and technical control of the Scheme and for its policing, it has in these connections the assistance of a Joint Milk Council to which several important functions have been delegated.

The Joint Milk Council consists of seven producers, the seats being distributed among the Six Counties in proportion to the liquid milk produced by each. Each constituency elects its own producer-representative by direct postal vote, each licensed producer having a vote. There are four distributors' representatives on the Council elected by the distributors, three consumers' representatives nominated by the Minister for Home Affairs, and three independent members nominated by the Minister of Agriculture, one of whom is the Chairman.

THE FIXING OF FARMERS' PRICES.

It is the function of the Joint Milk Council to fix the price which the distributor shall pay to the farmer for each of the three grades of milk, A, B, C. In practice the same price to the producer is fixed for B and C grades of milk. The reason for this arrangement will be given later. If the various interests on the Council cannot come to a unanimous decision on the price to the farmer the decision rests with the three independent members (one of whom is the Chairman) nominated by the Minister of Agriculture. So far the Council has made three determinations of producers' prices. On two occasions the decision was unanimous and on the other the matter had to be determined by the three independent members and it is pleasant to be able to record that the decision met with the whole-hearted co-operation of all concerned.

RETAIL PRICE.

Another important function of the Council is to fix the retail price of the three grades of milk, but before the prices become operative they must receive the approval of the Ministry. The additional check of the Ministry's approval to retail prices has been inserted as a means of preventing any tendency on the part of the Council to overcome differences between producers and distributors at the expense of the consumer. So far the Council has made its decisions with regard to the retail prices for the three grades either standard or minimum prices, but in practice there is no difference between the two. The usual method has been to fix for Belfast and area a standard—that is a statutory price—for Grades B and C and a minimum price for Grade A, but in practice the minimum is seldom if ever exceeded and becomes in effect a standard price.

It should be recorded that the Ministry has never had occasion to question the retail price determinations of the Council and this, added to the fact that the Northern Ireland consumer has the cheapest milk supply in the United Kingdom, is the best tribute that could be paid to the broad-minded and public-spirited manner in which the three interests on the Council, producers, distributors and consumers, have tackled the problem and overcome its difficulties.

LEVIES.

In order to finance the Scheme the Ministry, in addition to the producer's licence fee of 2s. 6d. per annum and the distributor's licence fee of £1 per annum, makes a variable levy on the three grades of milk. The levies have been modified at various stages as experience grew but they are now more or less standardised as follows .—

Grade A ...	1/10th of a penny per gallon.
Grade B ...	1/4th of a penny per gallon.
Grade C ...	1¾d. per gallon.

A producer who does not retail his own milk (and the bulk of producers do not do so) must make a contract with a distributor. The contract is registered with the Joint Milk Council and is governed by relatively simple terms and conditions. In order to simplify the machinery as far as possible the distributor pays the producer direct, deducting from the payment and transmitting to the Ministry the appropriate levy. If need be the Ministry can require all payments to be made through the Council, but as the Ministry has full access to all records and books this additional piece of machinery has not been necessary.

Every licensed producer is required to forward to the Ministry each month a return showing the amount of milk he has sold on the liquid market. His records are open to the inspection of the Ministry's general inspectorate and in particular the Ministry's district Veterinary Officer. A producer-retailer pays the levies set out above and no others. If he does not keep satisfactory records of his milk sales and fails to make proper returns to the Ministry he may be assessed at the rate of 6d. per cow per day if he is a Grade C producer, or 2d. per cow per day if he is a Grade A or Grade B producer—a powerful incentive to the keeping of honest records of sale. Sales by a producer to employees on his farm are exempt from levies and the retail price determinations.

PRODUCER'S PRICES.

As already mentioned, there have been three producers' price determinations, one covering the period 15th December, 1934, to 11th May, 1935, the second from 12th May till 31st August, 1935, and the third, in which a successful effort has been made to fix the producer's price for the whole year. Particulars are set out in the following table, and in order to facilitate comparison the appropriate English grade has been given in brackets :—

	Grade A (*English Certified*)	*Grade B* (*English Grade A*).	*Grade C.*
	Not less than		
Price per gallon to producer	1/3½d.	1/-	1/-
Levies per gallon payable to Ministry for Milk Fund	1⁄16d.	¼d.	1¾d.
	Not less than		
Net price to producer ...	1/3	11¾d.	10¼d.

In the case of a Grade A producer selling to a distributor the distributor supplies the producer with bottles and caps free of cost.

If the producer of B milk undertakes at his distributor's request to bottle the milk on the farm and the distributor supplies the bottles and caps he receives an additional allowance of not less than 1½d. per gallon for bottling. A scale of transport charges has also been fixed for distributors who collect supplies at the farm. The current rates are :—

	per gallon
Where the distance does not exceed 5 miles	¾d.
Where the distance exceeds 5 miles but does not exceed 10 miles	1d.
Where the distance exceeds 10 miles but does not exceed 15 miles	1¼d.
Where the distance exceeds 15 miles but does not exceed 20 miles	1½d.
Where the distance exceeds 20 miles but does not exceed 25 miles	1¾d.
Where the distance exceeds 25 miles but does not exceed 35 miles	2d.

Another ½d. per gallon may be deducted from the prescribed price in respect of every 10 miles or part thereof above 35 miles.

As will be seen from the table the price to the producer for B and C milk is identical and the difference in his net return of 1½d. per gallon is determined by the difference in the rates of levy. The distributor has thus no more to pay for B milk than for C and naturally his preference is for the superior article. Moreover, as will be seen later, such a producer's price structure enables B milk which must be bottled to be sold at very little more than the price of C milk, the bottling of which is optional and which is usually not bottled. The whole object of such an arrangement is to tempt the consumer to buy the better quality article and the farmer to produce it because of the better net price.

RETAIL PRICES.

As in the case of producers' prices there have been three determinations of retail prices, the last one covering a year from 1st September, 1935. This latter determination of the Council constitutes an interesting precedent which has so far worked well. For the purposes of this article it will simplify matters to confine attention to the last determination of retail prices. In fixing retail prices the Council has taken into consideration the various services involved in the cost of handling and delivering milk as between the more populous towns and the smaller urban and rural areas. Generally speaking, in Belfast and the surrounding area distribution is in the hands of the distributor, wheras in the rest of the Country the producer-retailer is for all practical purposes without a rival.

Retail Prices for Belfast and District and (during the summer) the more populous seaside towns.

	per gallon.	*per quart.*	*Distributor's margin per gallon.*
	not less than	not less than	not less than
Grade A (certified)	2/-	5½d.	10d.
Grade B (English Grade A)	1/10	5½d.	10d.
Grade C.	1/8	5d.	8d.

Retail prices for the larger Urban Districts and (during the winter) the more populous seaside resorts.

	per gallon.	*per quart.*	*Distributor's margin per gallon.*
	not less than	not less than	not less than
Grade A (certified)	1/10	5½d.	8d.
Grade B (English Grade A)	1/8	5d.	8d.
Grade C	1/6	4½d.	6d.

Retail prices for the remainder of Northern Ireland.

	per gallon. not less than	*per quart.* not less than	*Distributor's margin per gallon.* not less than
Grade A (certified)	1/8	5d.	6d.
Grade B (English Grade A)	1/6	4½d.	6d.
Grade C	1/4	4d.	4d.

SHOP AND FARM PRICES.

The retail prices given above are in all cases prices for milk delivered to the consumer. But the Council very wisely came to the conclusion that if the consumer was prepared to go and collect his milk at a shop there was no valid reason why he should pay for the delivery costs. Accordingly, the price at all licensed shops, and many have been licensed, is 1d. per quart less than the delivered price and the consumer in Belfast can, if he wishes, and he does to a very large extent, obtain Grade B milk at 4½d. per quart and Grade C at 4d. per quart.

Similarly in the urban and rural areas milk can be obtained at shops or at the farm at 1d. per quart below the delivered prices. Thus in such areas Grade B milk can be obtained at 3½d. or 4d. per quart and Grade C at 3d. or 3½d. per quart according to the population of the district where the sale takes place.

AMOUNTS OF GRADES A, B AND C.

Although the Milk and Milk Products Act has only been in operation since December 1934 the following estimate of the annual liquid milk sales of the various grades is not without interest :—

	gallons.
Grade A	1,500,000
Grade B	5,000,000
Grade C	8,000,000

Grade A is not a new grade. Under its previous designation of Grade A (T.T.) the Ministry has for some time by educational and propaganda methods been actively stimulating production. Grade B is, however, a new grade, and as a start the figures must be considered highly satisfactory. They are indeed better than the most confident anticipations and are an excellent object lesson of the extent to which payment for quality service stimulates the producer.

The Ministry has power to vary the conditions for Grade A, B and C licences. Needless to say, such variations when made will be in an upward direction and it is clear that as time goes on Grade C will disappear. How long it will take is, of course, a matter of speculation.

PASTEURISATION.

As will have been noted, there is no grade for pasteurized milk. Under the Act Grade A milk may not be pasteurized. Grade B and Grade C milk may be pasteurized and the word "pasteurized" added to the grade designation, provided that such pasteurization is carried out by a process and under conditions approved by the Ministry. In Northern Ireland as a whole, the amount of milk pasteurized is relatively small and with the cleaning up of the milk supply and the improvement which has as a consequence taken place in its keeping quality, the amount may be less in future.

THE MILK FUND.

The Milk Fund is controlled by the Ministry and its accounts submitted annually to the Comptroller and Auditor General for Northern Ireland. Into the Fund go all licence fees, all milk levies, the proceeds of the licence fee of 4s. 8d. per cwt. on all margarine and butter (with the exception of farm butter disposed of directly by retail) sold in Northern Ireland. In addition there is paid into the Fund a Milk Industry Assistance Grant not exceeding £200,000 or such smaller amount as is necessary to raise the price of manufacturing milk to 5d. in summer and 6d. per gallon in winter. This is the same provision as has been made by the Treasury in respect of manufacturing milk in connection with the English and Scottish Schemes. Out of the Milk Fund goes the sum necessary to bring the price of manufacturing milk at the Creameries to 5d. and 6d. in summer and winter respectively, the additional cost of veterinary inspection, the administrative costs, and a bonus of 2d. per gallon in respect of any Grade A or Grade B milk and 1d. per gallon in respect of Grade C milk which cannot find a place on the liquid market and is therefore sent to a Creamery. In other words, if a licensed producer of B milk cannot make a liquid milk contract and sends his milk to the Creamery he receives there the "guaranteed summer price" of 5d. per gallon + 2d. per gallon from the Fund, making a total of 7d. per gallon in summer and 8d. per gallon in winter. A "C" producer so situated would receive on the average 6d. in summer and 7d. in winter. Such surplus liquid does not pay levies.

The Milk Fund may also be used for publicity work, for financing research work of direct interest and value to the dairying industry, and for the support of such Schemes as milk to school children, etc. at reduced rates. As, however, milk in Northern Ireland generally can be obtained at very little more than the subsidised price to school children in England it has been deemed advisable to concentrate on perfecting the mechanism of the Scheme and its price structure before branching out into other lines of activity.

MANUFACTURING MILK.

It has already been noted that manufacturing milk constitutes

70% of the milk produced in Northern Ireland. About one-third of the manufactured milk goes to Creameries which are mainly co-operative. There the milk is separated, the separated milk returned to the farm, and the cream either sold as such or churned into butter. The remainder of the manufactured milk is churned whole on the farms and the resulting butter-milk used in the rearing of stock.

For the past few years and until the spring of 1934 the Creameries were steadily going down-hill and by 1934 the whole Creamery side of the industry was threatened with collapse. The world fall in the price of butter, added to the fact that Northern Ireland in its own consuming market was subject to intense competition from Irish Free State Creamery butter, had reduced the price of milk to about 2d. per gallon to the Creameries. The intensity of the competition to which Ulster Creameries were subjected may be gathered from the fact that with prices about 70/- per cwt. they had to meet competition from Irish Free State Creamery butter enjoying an export bounty and subsidy in the neighbourhood of 60/- per cwt. As a consequence many farmers discontinued sending their milk to Creameries, throughput decreased, and overheads were correspondingly high.

Payment of the guaranteed price of 5d. in summer and 6d. in winter began, as in Great Britain, in April 1394, but the operation of the Scheme in Ulster differs considerably from that in Great Britain. From the returns made each month by the co-operative Creameries to the Ministry the average price of manufacturing milk for the whole Province is calculated. If the average price is 4d. for a summer month then an equalisation or deficiency payment of 1d. per gallon is made to each Creamery irrespective of the actual price paid by that Creamery. By this means the efficiency of the individual Creamery manager is maintained. The Creamery Manager in turn pays out without any deduction to his producers and in accordance with the pounds of butter-fat delivered the deficiency or equalisation payment made by the Ministry. The general average price paid for manufacturing milk is thus 5d. per gallon in summer and 6d. per gallon in winter. There are no levies and no additions from the pool. It is, therefore, not without interest to see to what extent such relatively modest manufacturing prices have affected supplies to Creameries.

	Creamery supplies. *gallons.*	
1st Apr., 1933 to 30th Nov., 1933	15,160,000	(no subsidy).
1st Apr., 1934 to 30th Nov., 1934	15,200,000	(8 months. First subsidy year).
1st Apr., 1935 to 30th Nov., 1935	19,400,000	(8 months. Second subsidy year)

The figures give abundant evidence of the fact that the modest price of 5d. per gallon in summer and 6d. per gallon in winter has been sufficient to increase Creamery supplies by 28% within two years. Investigation shows that the increased supplies to Creameries are not to any appreciable extent due to an increase in milk production but to the return to the Creameries of farmers who withdrew their supplies owing to the uneconomic price. Needless to say, the subsidy is not paid in respect of either butter or cheese made on the farm and as far as farm cheese is concerned the conditions differ from England and Scotland. Moreover, no subsidy or equalisation payment can be made in respect of any milk manufactured into cheese at the Creamery. This condition was inserted by the Ministry for various reasons: first, because cheese had not in the past been made at Ulster creameries and to do so would only accentuate difficulties on an already glutted market, and secondly and the most important reason, because the manufacture of cheese at the creameries would upset the balance of the agricultural system which depends upon the return to the farms of separated milk for the rearing of calves, pigs and poultry.

GENERAL.

The Milk and Milk Products Act constitutes the biggest change in the milk industry that has been attempted in Northern Ireland. It is, as will have been noted, not only a Scheme of agricultural marketing reorganisation but also a big effort in public health reform. For some time before the Scheme came into operation and since there has been a rapid improvement in the condition of byres and dairies. The distributive trade report a very marked decrease in the amount of sourage experienced during the summer months. The Ministry has been surprised at the smoothness with which the change over was effected and the Scheme has functioned since it started. A small measure of opposition was experienced from a small number of Grade C producer-retailers, but at the recent election of producer members of the Milk Council every one of the former members who offered himself for re-election was returned by an overwhelming majority. Just what the future has in store remains to be seen, but at least it is manifest that the initial success and smooth running of the Scheme is due to the practical desire of all sections, producers, distributors and consumers, to make it a success, and as long as that spirit predominates difficulties which may arise in the future should not prove insoluble.

"ROPINESS IN MILK"

By KENNETH L. RICHARDS.

Liquid milk is subject to numerous forms of contamination and probably the most annoying is that in which the milk or cream becomes *ropy*, *stringy* or *slimy*. Micro-organisms enter, resulting in a change of the consistency of milk and cream which can be drawn out into threads, varying from one to four feet, of a very fine silky nature. In certain instances acid producing organisms produce a tough and doughy milk which will not pour from an inverted container.

Importance of Ropiness.—Ropiness is one of the most common abnormal fermentations of milk, being most serious in market milk, and an outbreak of this type may be responsible for the loss of a large proportion of the customers. Milk is often delivered in a normal condition and then shows ropiness after being held by the customer. This often occurs when the holding temperature is quite satisfactory, owing to the fact that some of the organisms producing ropy milk grow very well at fairly low temperatures producing the characteristic ropiness, and often at higher temperatures the ropy producing organisms are overgrown by lactic acid organisms and the milk sours. It is important to point out that the organisms causing ropiness are entirely harmless to persons consuming milk or cream in which they have grown.

THE CAUSES OF ROPINESS.

(*a*) *Mastitis or Garget.*—In some forms of garget the secretion of the udder is changed to a slimy or stringy consistency, which may not be very apparent during the process of milking, but on allowing to stand a distinct ropiness appears, due to the growth of the bacteria. It is however accepted that " gargety milk " should be distinguished from ropy milk in that the cause of the " stringy nature " is more often due to the presence of fibrin and white corpuscles from the blood, when this is the case it is not possible to propagate other samples of milk to produce ropiness, but organisms are present in the milk, and infection can be carried from one cow to another, on the hands of milkers. Milk of this nature is not desired for food.

(*b*) *Physical.*—Under certain conditions of temperature, acidity and movement, the proteins of milk may aggregate together forming apparently solid ropes or threads. These conditions often occur during cooling, and the cooler itself may be festooned with " ropes," yet, after passing into the churn no further signs of ropiness are noticed, being a temporary physical change of no significance.

(*c*) *Bacterial Contamination.*—This is the most frequent cause of ropiness in milk. There are seven types of organisms responsible for ropiness such as :—(1) *Bacterium viscosum*, (2) *Bacterium micrococci*, (3) Bacterium aerogenes, (4) Aerobic spore-formers, (5) Bacterium Strepto-cocci lactis, (6) Bacterium coryne and (7) Bacterium Lacto bacilli.

Numbers (1) and (2) are of the greatest importance as organisms causing ropiness, these are quite common in water, and have been isolated from pure and stagnant supplies of water.

MAIN SOURCES OF INFECTION.

(1) Due to :—Contaminated drinking water, ponds, streams, or marshy ground where stagnant water can accumulate, thereby the udders and the flanks of the cows become infected.

(2) Due to :—Dirt from the cow or milker.

(3) Due to :—Contamination from milk utensils, churns, coolers, strainers, cloths, etc., or any material with which the milk is brought into contact.

(4) Due to :—Contamination of the water supply used for cooling and the washing up of the dairy utensils. In the former case, should the cooler leak, the milk will be directly infected.

(5) Due to :—Infected straw, hay, bedding and manure with the organisms producing ropiness.

(6) Due to :—Dust-laden air in cowshed and dairy.

When ropiness in milk is very prevalent, it has been found that the organisms originally came from surface waters. Probably the most common source of infection is the contamination of the milk during the process of milking on account of the organism readily falling into the milking pail from infected flanks and udder.

Ropiness in milk has often followed the flooding of lands on which the cows were grazed, and again, cases of ropiness have been prevented simply due to the fact that the producing animals have been kept away from *surface waters*. A few cases have been reported due to the infection of drinking troughs in the cowshed.

METHODS OF DETECTION.

If an outbreak of "ropiness" suddenly appears, immediate steps should be taken to ascertain whether it is due to a bacterial or physical action on the milk. If due to bacteria a sample test can be made by adding a few drops of the affected milk to some sterile milk which is held in a sterile container. The container should be kept in a moderately warm room and should be covered with a piece of glass to prevent dust contamination. The time taken for "ropiness" to appear may vary from one to three days. The development of ropiness due to contaminated milk utensils, a very common source, should be carefully noted. Therefore steps should be taken to diagnose the possible source of infection, the procedure being as follows :—

(*a*)—Thoroughly wash and dry the flanks and udders of the cows prior to milking.

(*b*)—Allow the milk to pass through all the usual stages on the farm—in a normal manner.

(*c*)—Take samples of the milk from each stage, (i.e.) from the teat, milking pail, cooler, and the churn, or any other container in which the milk may be placed and come into contact with. By taking samples at every stage, infection from the cow or utensils may be easily discovered. If the contamination is due to cows standing in stagnant water or wading through marshy land, such source of infection may be diagnosed by placing a little milk from *unwashed* cows into clean glass containers and watch for the development of ropiness. There is also a chance of infection by the water used for the washing of the utensils, in this case a simple test can be made by adding a little of the suspected water to a glass of fresh sterile milk. If contamination by the air is suspected then place a glass of clean milk (*exposed*) in the dairy and cow-shed, if the organisms producing ropiness are present in the air, the sample of milk will quickly become contaminated and the characteristic change in the milk is noticed.

If an outbreak of ropiness should occur on the farm or in the dairy, it is necessary to adopt the whole of the following measures of prevention and control :—

PREVENTION AND CONTROL.

*(1)—Dirt from a cow or worker may be avoided by attention to the cleanliness of the cow, of the worker and of his clothes.

(2)—Contamination by milk utensils, cloths, churns, etc. All these must be thoroughly washed, then completely immersed in actively boiling water for a period of not less than ten minutes, or sterilized by steam. Scalding does not ensure the production of the state of cleanliness which is necessary. After the utensils, etc., have been boiled or steamed they *must not be rinsed with water before use*, but must be kept in a clean place and protected from dust. This may be accomplished by turning the milk pails upside down and covering the utensils, etc. with a cloth which has been washed and either boiled or steamed. *Wooden vessels should not* be used for milk as they *may persistently retain ropy organisms.* It is not advisable to use wooden troughs even for washing milk vessels.

---

*Refer to the Ministry's Journal of Agriculture, see page 660, of October, 1935.

(3)—Contaminated water supply or marshy land which may act by infecting the surface of the cow's udder or flank. The cows must not be allowed to stand in the contaminated supply or to wander on to marshy land in which they may infect their udders. In some cases it has been found necessary to fence off the land.

(4)—Contaminated water supply which may be used for washing utensils. If this is found to be the source of infection, consideration may be given to the possibility of procuring a cleaner supply of water, a task which may not be easy of accomplishment. Very considerable protection against the danger of this evil may be attained by efficient washing and sterilization of all utensils as described under (2). The possibility of a leaky cooler must not be forgotten.

(5)—Straw, mouldy hay, etc. may show the presence of the organisms which produce ropiness in milk. The custom of wiping the udder of the cow with a wisp of straw before milking is a bad one. After washing their hands for milking, workers should not handle straw or fodder, nor should any such material be brought into the byre just before or during milking. The milking stool must be scrupulously clean or it may infect the hands of the milker.

(6)—Infection by air. Air infection may occur either in the cow-house or in the dairy, especially in hot dry weather. It is best avoided by keeping these free from dust. The rooms where the milk is kept should be well cleaned, wooden, cement or stone floors, walls or racks, etc., may first be washed down and then either disinfected by a solution of bleaching powder or, where possible, lime washed.

(7)—Certain plants, e.g., butterwort, may be a source of infection. An investigation of the pasture land will demonstrate the presence or otherwise of plants which may be a source of infection. If there be any reason to suspect their presence, then the cows must be removed to another pasture.

(8)—If feeding stuffs have been shown to be a source of infection, these should not be introduced into byre until after milking.

Conditions controlling ropiness.—In all infection, such as ropiness, two factors are necessary :—

(1)—A continuous and heavy seeding of the milk with the causative organism.

(2)—Conditions in the milk suitable for the growth of the bacteria and production of slimy substances actually responsible for ropiness.

GENERAL.

The common ropy milk organisms grow best in the presence of oxygen. It is found sometimes, that ropiness is confined to the top layer of the milk, but usually the entire bulk is affected. Low temperatures favour the development of ropiness, since not only do the bacteria concerned grow best at rather low temperatures (their optimum is 20°-25° C. as against 37°-42° C. for B. coli), *but low temperatures favour the production of the slimy substances by bacteria.* Efficient pasteurization (145° F. for 30 mins.) will, in all but exceptional cases, kill ropy milk organisms. It is essential, of course, to avoid post-pasteurization contamination. Some very extensive outbreaks of ropiness have occured in pasteurized milk, probably due to contamination from the plant equipment after heating. Bottle fillers are a common source of contamination, due to the difficulty of thoroughly sterilizing them; the ropy milk organisms may survive inefficient pasteurization in some instances, outbreaks in pasteurized milk can, in most cases, be stopped by a thorough cleansing and disinfection of the plant and equipment.

If the recommendations, measures of control, etc., are carefully carried out, " Ropiness in Milk " is unlikely to develop, or it will, in any case, be quickly brought under control.

INTERNATIONAL DAIRY FEDERATION

by T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.

Meetings of the Commissions of the International Dairy Federation were held in Berne (31st May, 1st June, 1935), and in Brussels (27-28th Sept., 1935), and the following notes have been based on the discussions which took place at those meetings.

Cheese.—In the last volume of the Journal of the British Dairy Farmers' Association (1935, **47**, 79) reference was made to a proposal to prohibit voluntarily all international trade in cheese which contained less than 40 per cent. of fat in the dry material, and the opinion of the British Dairy Farmers' Association was that it would be almost impossible to carry a resolution of that character into effect. The Commission, however, recognised that although cheese containing less than 40 per cent. of fat in the dry matter might be made within a country, it might nevertheless be feasible to prohibit voluntarily any international trade in such a product.

Processed Cheese.—Further discussions took place concerning international trade in processed cheese following the replies (loc. cit, page 81) sent by this Association and other countries to the questionnaire submitted by the committee of the International Dairy Federation. The questions were :—

(1) *Should each package of processed cheese (made with the necessary addition of certain salts) bear near to the country of origin, in the language of the importing country an indication that the product is "processed cheese" (fromage fondu ; Schmelzkase) ?*

In general, the replies to this question were in the affirmative, although one country suggested that this type of cheese differed so much from ordinary cheese that a special indication such as "processed cheese" seemed superfluous.

(2) *Should processed cheese bearing the name of a special kind of cheese be necessarily made exclusively of that cheese ? If so, by what means would it be possible to verify the truth of the statement ?*

It was unanimously agreed that if a manufacturer wished to sell processed cheese under a definite name, its quality ought to correspond to the quality of the cheese named. If the quality deviated in a marked manner, the name would be fraudulently used. To detect the fraud, however, seemed extremely difficult. In Switzerland it was enacted, for instance, that a processed Emmental cheese must present the essential characteristics of an Emmental cheese and it was thought fraudulent abuse would be too apparent to go undetected. In France the legislation demanded that the fat content of the processed cheese must not be less than that required by law in the original cheese.

Difficulties however arose where blends of two similar cheeses were necessary in the manufacture of a satisfactory processed cheese. Thus, processed Emmental cheese often contained a proportion of Gruyère cheese, but that could hardly be described as fraud. It seemed the only solution to the problem was to state that if a manufacturer wished to sell a processed cheese under the name of an original cheese, he should be authorised to do so on the condition that the essential characteristics of the original cheese were maintained in the processed product.

(3) *Was it necessary to establish standards for the fat content and limits for water or any other limitations?*

Finland was of the opinion that for the benefit of the industry it was necessary to restrict to the utmost the legal enactments on prescriptions concerning the product in question, and suggested that the fat content of the whole cheese should replace the two usual limits for (*a*) the fat content of the dry material and (*b*) the water content of the whole cheese. A separate report on this proposal was submitted and will be considered later. It may, however, be pointed out that in this country there are no legal limits for ordinary cheese and therefore the proposal is only likely to receive consideration in this country as affecting any possible future legal enactments for both cheese and processed cheese. Any such regulations in this country would no doubt apply not only to the home-made product, but to all imported cheese. The Commission of the International Dairy Federation has collected information concerning the legal limits for cheese in numerous countries, and postponed the discussion on Finland's proposal until the various countries had given it further consideration. [see (6) below.]

(4) *What additions of foreign matter ought to be prohibited?*

It seemed agreed that all materials added to conceal faults of manufacture, to conceal inferior initial substances, and to influence the weight should be prohibited and also all materials of an injurious character. It is, however, essential in the manufacture of processed cheese to add certain emulsifying salts, and the Commission decided to ask each country to supply information on any legal enactments limiting the addition of such salts. In France and Switzerland the proportion is limited to an amount not exceeding 3 per cent. In order to facilitate international trade, it is essential to unify to the utmost individual enactments.

In addition to the above questions which were mentioned in the previous volume of this Journal, the following further questions received attention.

(5) *Was it necessary to indicate the net weight on the package?*

To this question the British Dairy Farmers' Association replied to the effect that the Association was generally in favour of the suggestion, on the grounds that the purchaser should know how much cheese he was buying apart from wrappings and container, and that the honest manufacturer should be safeguarded against practices adopted by less honest competitors to mislead the purchaser.

The general opinion of the members of the International Commission favoured the idea and it was learned that by law in Germany, processed cheese must be sold in boxes containing one of four quantities of cheese, namely, 500, 250, 125, 72.5 grammes, and that a tolerance of 3 per cent. was allowed due to the fact that the weight of the cheese might vary slightly by drying. Experiments in Finland showed that the change would not exceed 3 per cent. In Switzerland, 3 per cent. tolerance would be allowed in the regulation which required the weight of the cheese to be printed on the box or container.

The International Commission decided to ask each country whether for the purpose of international trade it would be possible (*a*) to insist that the weight of cheese should be printed on the box, (*b*) to allow a tolerance of 3 per cent., (*c*) to state whether definite quantities, say 1 lb., ½ lb., ¼ lb., etc., should be packed in the boxes and that no other amounts should be allowed.

(6) *The Absolute Fat Content of Processed Cheese.*

Dr. A. Homén (Finland) presented a report suggesting that the standardisation of processed cheese should be based on the fat content of the whole cheese rather than on the fat content of the dried material. A processed cheese might contain a high percentage of fat in the dry matter of the cheese, but so much water that its value was considerably reduced. The purchaser would be misled by the label stating that the fat content of the dry matter was, say 45 per cent., whereas with 50 per cent. of water in the cheese, the actual fat in the processed cheese as bought was really 22.5 per cent.

If any legal limits were to be prescribed it would be simpler to state merely the fat content of the whole cheese, than to give two sets of limits, one for the fat content of the dry matter and the other for the moisture content. The two sets of figures, in any case, were often not clearly understood by the purchaser, whereas the one figure for the fat content could not be misunderstood. Dr. Homén gave the results of some 254 analyses which indicated that the fat content of the whole processed cheese was a better criterion than the fat content of the dry matter, and that a fat content of 24 per cent. might conveniently be adopted for ordinary processed cheese. The National Committees are asked to consider the suggestion and forward their comments.

Milk Powder.—In the last volume of this Journal, reference was made to the fact that the International Dairy Federation had appointed a Commission to consider in all aspects the question of international trade in milk powder. The first meeting of the Commission was held in Berne (31st May, 1st June, 1935), when Dr. F. E. Posthuma (Holland) was elected President of the Commission. In opening the discussion on international trade in milk powder, he said that the first three items to be discussed (standardisation, methods of analysis, bacteriological standards), were analogous to those considered by the Commission on Condensed Milk (see B.D.F.A. Journal, 1935, **47**, 78), but they would be viewed from an entirely different stand-point. Whereas most of the condensed milk was consumed by the public who depended upon the designation on the label for information, the chief purchasers of milk powder were large chocolate factories usually equipped with laboratories in which the quality of the milk powder was tested. Only an insignificant amount of milk powder was consumed by small purchasers, such as bakers, etc., who had no means of testing the quality of the product.

Consideration was then given to the following points :—

Limitations.—It was agreed that the terms of reference should only apply to international regulations for trade in milk powder and skimmed milk powder, as dried butter-milk, whey, and analogous products, being prepared from initial materials of variable composition did not present that uniformity necessary for international agreement. Also, the latter products were of importance only in the country of origin and did not enter into international trade. Furthermore, it seemed desirable to keep within the bounds of the most important field and to avoid subsidiary matters which were likely to render agreement on principal points more difficult.

(1) *Physical Properties of Milk Powder.* It was accepted that milk powder of all varieties should exist in the form of a white (or at the most light yellow) homogeneous powder, free from large or small agglomerations. The taste and smell should be sweet and fresh and not acid, tallowy, rancid or defective in any other manner.

(2) *Moisture Content of Milk Powder.* Considerable discussion arose concerning maximum moisture content which would be permitted for international trade in milk powders. Although the moisture content of the freshly prepared product might be as low as 2 per cent., the powder was hygroscopic and unless placed in air-tight containers, the amount of moisture might increase. Finally the Commission agreed to recommend to each National Committee that the maximum moisture content should be fixed at 5 per cent., for all varieties of milk powder.

(3) *Fat Content.* A lengthy discussion took place concerning what indication of the fat content of the powder should appear on the label of the container and it was finally agreed that after the designation " milk powder " should appear the fat content. If no figure was given it was necessary that this milk powder should contain a minimum of 24 per cent. of fat, and be termed Whole Milk Powder.

(4) *Solubility.* The question of solubility was deferred to a later meeting.

(5) *Absence of Chemical Additions.* It seemed generally agreed that all chemical preservatives should be prohibited; but it was pointed out that in most cases of production, it was necessary to add a small quantity of sodium carbonate or bicarbonate to reduce the acidity of the milk to a satisfactory degree to facilitate manufacture.

The discussion was adjourned in order to get further evidence concerning the necessity of authorising the addition of a small quantity of sodium bicarbonate to the milk before drying, the limiting amount of such an addition, and the means of estimating the addition for control purposes.

Suggestions concerning the Wording of the Labels placed on Containers of Milk Powder.

For milk powder used in industry (as in the manufacture of chocolate, bread, cakes, pastries, etc.), or for fodder, it seemed desirable to indicate on the container the net weight of the powder. If the material was not skimmed milk powder, then the percentage of fat should be indicated.

For milk powder sold in small packages (boxes, glasses, etc.), it was desirable to print in the language of the importing country the following information (*a*) the net weight of the milk powder, (*b*) either the designation " whole milk powder " without qualification (in which case the fat content should be not less than 24 per cent.), or the designation " milk powder containing . . . per cent of fat." It was also suggested that the label should state the quantity of water in which the milk powder should be dissolved in order to obtain a liquid corresponding as nearly as possible to the milk from which the powder was manufactured (see Condensed Milk, B.D.F.A. Journal 1935, **47**, 78), but the suggestion was rejected on the grounds that milk powder used in that form was generally taken under medical direction.

Regulation of the Trade and Price of Milk Powder.

Prof. Mork (Norway) submitted a report on international trade in milk powder. Although the statistics of certain countries were incomplete, it seemed that Great Britain imported by far the greatest proportion (almost 50 per cent.) of the world's trade. The principal exporting countries were the Netherlands (with 50 per cent. of the world's trade), New Zealand, Canada and Australia. However, compared with the world's trade in butter, the trade in milk powder was very small and only represented about 2 per cent. of the milk equivalent of the butter trade.

During past years the price of milk powder had decreased and according to the report on " Dairy Produce Supplies in 1934," issued by the Imperial Economic Committee the value declared for Custom purposes was :—

1929	...	£2.7 per cent.	1932	...	£1.9 per cent.
1930	...	£2.5 ,, ,,	1933	...	£1.7 ,, ,,
1931	...	£1.9 ,, ,,	1934	...	£1.8 ,, ,,

It was remarkable that during this period the price of butter had held its level practically unaltered. A scheme of apportioning the trade in milk powder (quotas) seemed essential to maintain the price. Such schemes had been adopted for sugar, rubber, tin, etc., and were not new in principle, and it was suggested that the price should if possible be fixed at £2.5 per cwt.

Each national Committee was therefore asked by the Commission to inform Prof. Mork :—

(*a*) Whether it was possible or advisable to establish a minimum price for international trade in milk powders. If so, whether a price of £2.5 per cwt. would prove acceptable.

(*b*) If general consent was reached, whether legislation would be necessary to prevent export at lower prices. In many countries organisations existed and further legislation would be unnecessary. In other countries, the consent of the manufacturers, which were fortunately few in number, might be secured voluntarily.

(*c*) Whether authority should be given to the International Dairy Federation to act as an intermediary. If a manufacturer offered, for export, milk powder at a lower price it would be difficult to conceal. The national committee would immediately notify the International Dairy Federation who, in turn, would ask the national committee of the exporting country to stop the price-cutting.

The international trade in milk powder was small and might lend itself to an experiment of this character which, if successful, might possibly be adopted with other commodities.

Whereas Prof. Mork's suggestions introduced an entirely new note into the deliberations of the International Dairy Federation, that is the regulation of trade to maintain satisfactory prices, it was a task, no matter how difficult, which the Federation should not refuse to undertake. It was obvious that if the International Dairy Federation were to undertake such important work on behalf of the dairy industry, its influence and prestige would be raised and its activities enhanced and extended.

Special note to Members and others :—The Council is considering replies to this report. Members of the B.D.F.A., and others desiring to give information or to comment on any of the foregoing topics, or to raise any problem with the International Dairy Federation should communicate with the Secretary, The British Dairy Farmers' Association, 28, Russell Square, London, W.C.1.

RECORDS OF TYPE, SIZE AND PRODUCTION OF REPRESENTATIVE ANIMALS AT THE LONDON DAIRY SHOW, 1935

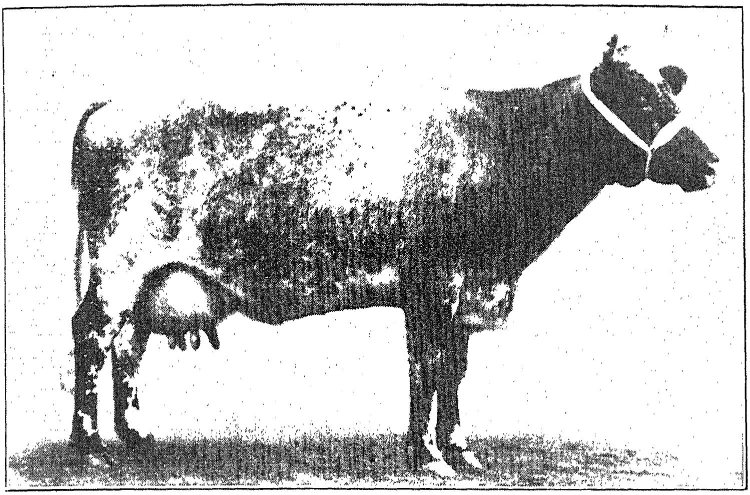
By

SIR J. Q. LAMB, M.P., S. BARTLETT, M.C., B.SC. and W. F. JESSOP.

At the London Dairy Show, 1928, a set of records was collected comprising photographs, measurements and records of production of the first prizewinners in each of the mature cow classes. These records together with the principal objects and methods of taking the photographs, measurements, etc., were published in this Journal, Vol. XLI., pp. 123 to 148. Subsequently the same procedure has been adopted at each London Dairy Show and the records published yearly.

The following pages show photographs, measurements and all available records of production of 21 animals of 11 different breeds.

In addition to the records published here the Association preserves the information in a rather more complete and permanent form in albums prepared each year. These albums contain two original photographs (right and left side) together with records of identification, breeding, production and size.



"STEPPINGLEY CLOVER'S GIFT 4TH." Catalogue number 17.

Exhibited in Class 1 (for Pedigree Dairy Shorthorn Cows born on or previous to August 1st, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 28th September, 1927. Age when photographed 8 years 1 month.

Prizes won at the London Dairy Show, 1935 :—First Milking Trial, Desborough Cup.

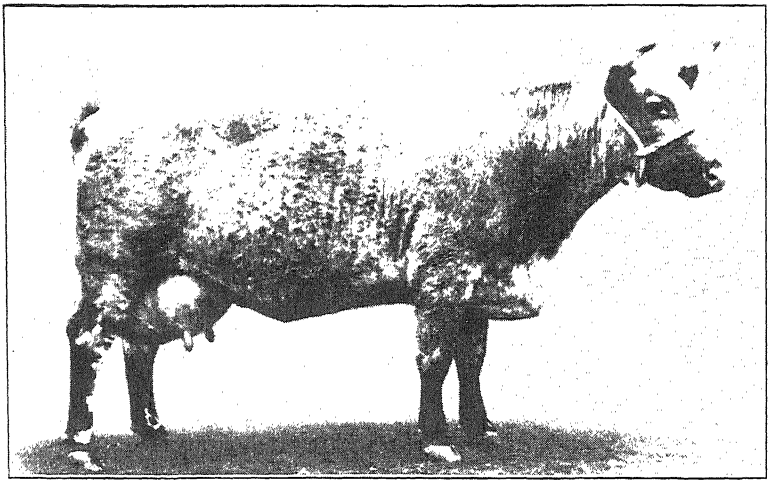
Owners and Breeders, Messrs. A. Brittain and Son.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average per-centage.	Lactation yield of Fat.
					lbs.			lbs.
1	27 Apr., 1931 ...	4	324	49	9,662¾	Not	tested.	
2	9 May 1932 ...	4	316	116	12,553¼		do.	
3	19 July 1933 ...	5	308	60	10,967½		do.	
4	27 July 1934 ...	22	296	91	9,029		do.	
*5	9 Sept., 1935 ...	9	—	—	—	—	—	—

*Record incomplete for 5th lactation,



"WILD EYES DUCHESS 4TH." Catalogue number 18.

Exhibited in Class 1 (for Pedigree Dairy Shorthorn Cows born on or previous to August 1st, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 26th December, 1928. Age when photographed 6 years and 10 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, Calvert Cup.

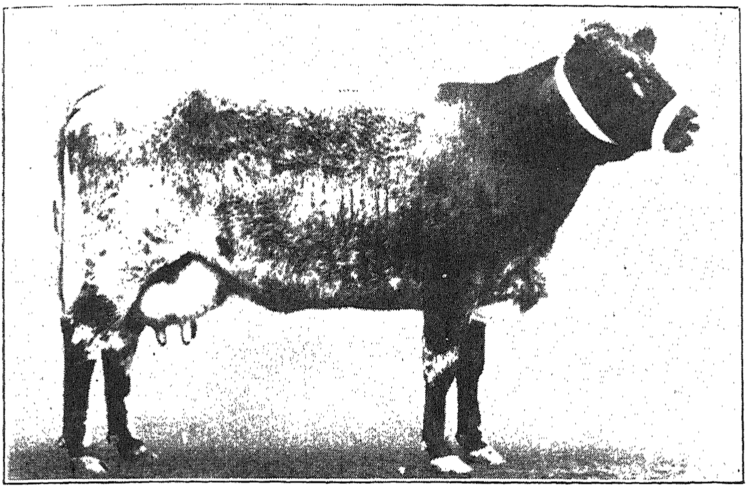
Owner, Sir Martin J. Melvin, Bt. *Breeder*, Mr. J. Moffat.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period)	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
			Not	available				
2				do.				
3				do.				
4	3 Oct. 1934 ...	4	251	72	—	—	—	—
*5	26 Aug. 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 5th lactation.



" CANTAB JANET 3RD." Catalogue number 66.

Exhibited in Class 4 (for Non-Pedigree Dairy Shorthorn Cows).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 30th July, 1930. Age when photographed 5 years 3 months.

Prizes won at the London Dairy Show, 1935.—Third Inspection, Extra Inspection, First Milking Trial, and Extra Prizes of the Shorthorn Society of £25 and £10.

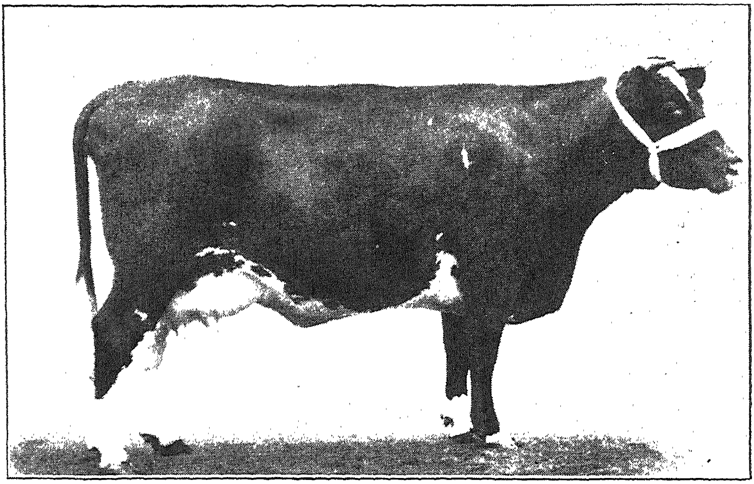
Owners and Breeders, University Farm, Cambridge.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average per-centage.	Lactation yield of Fat.
					lbs.			lbs.
1	12 Mar., 1933 ...	4	367	44	8,247½	No	regular	tests.
2	1 May 1934 ...	4	407	93	16,451¼	11	3.63	597
*3	17 Sept., 1935 ...	—	—	—	—	—	—	—

*Record incomplete for 3rd lactation.



" GARNET'S JEWEL." Catalogue number 74.

Exhibited in Class 4 (for Non-Pedigree Dairy Shorthorn Cows).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 21st July, 1931. Age when photographed 4 years 3 months.

Prizes won at the London Dairy Show, 1935.—First Inspection.

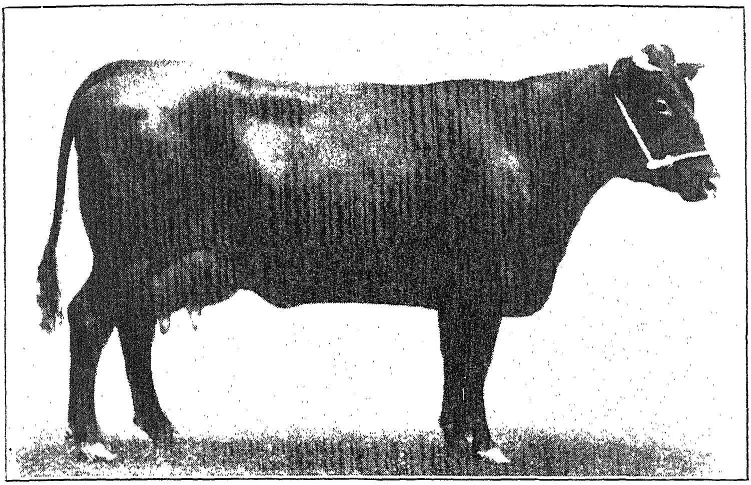
Owner, J. H. Robinson, Esq. *Breeder*, W. Garnet, Esq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	July 1934 ...	—	368	80	10,255¼	—	—	—
*2	4 Oct. 1935 ...	7	—	—	—	—	—	—

*Record incomplete for 2nd lactation.



"BENDISH NANCY 25TH." Catalogue number 86.

Exhibited in Class 6 (for Lincoln Red Shorthorn Cows).

British Dairy Farmers' Association official photograph taken on October 23rd, 1935.

Born 22nd December, 1931. Age when photographed 3 years and 10 months.

Prizes won at London Dairy Show, 1935.—First Inspection, Extra Inspection.

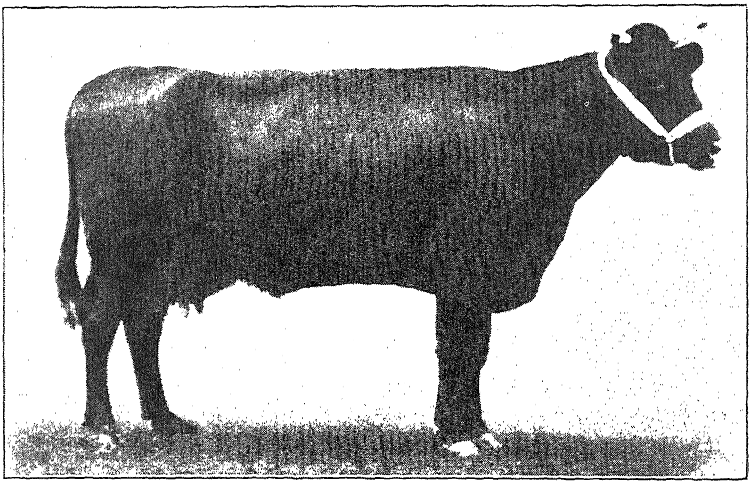
Owner and Breeder, F. Russell Wood, Esq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	14 Sept., 1934 ...	4	300	59	10,026¾	3	3.55	356
*2	12 Sept., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 2nd lactation.



"HISTON DUCHESS 20TH." Catalogue number 90.

Exhibited in Class 6 (for Lincoln Red Shorthorn Cows).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 28th August, 1930. Age when photographed 5 years 2 months.

Prizes won at the London Dairy Show, 1935.—Reserve Inspection, First Milking Trial.

Owners and Breeders, Messrs. Chivers and Son, Ltd.

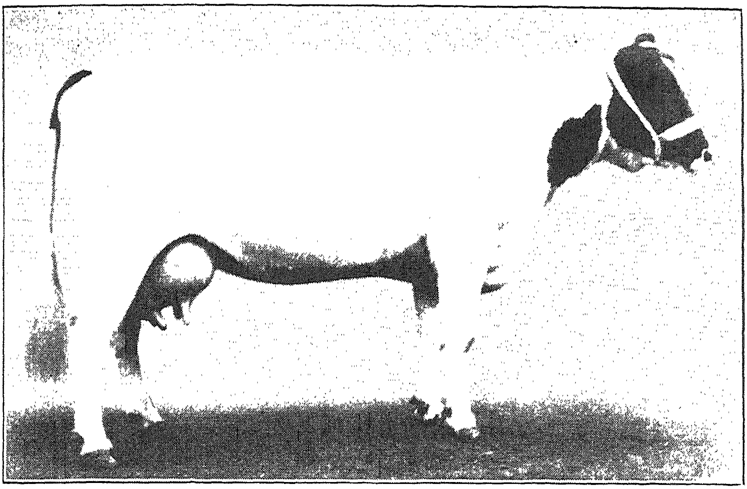
Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	29 Jan., 1933 ...	5	300	nil	9,325½	7	3.64	339
†2	30 Nov., 1933 ...	4	271	46	4,984¾	6	3.92	195
3	17 Oct., 1934 ...	4	280	49	10,204¾	5	3.31	338
*4	15 Sept., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for fourth lactation.

†Second calving was premature.



" HERRINGTON KEG O'MILK." Catalogue number 112.

Exhibited in Class 8 (for British Friesian Cows born on or previous to August 1st, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 19th July, 1930. Age when photographed 5 years 3 months.

Prize won at the London Dairy Show, 1935.—First Inspection.

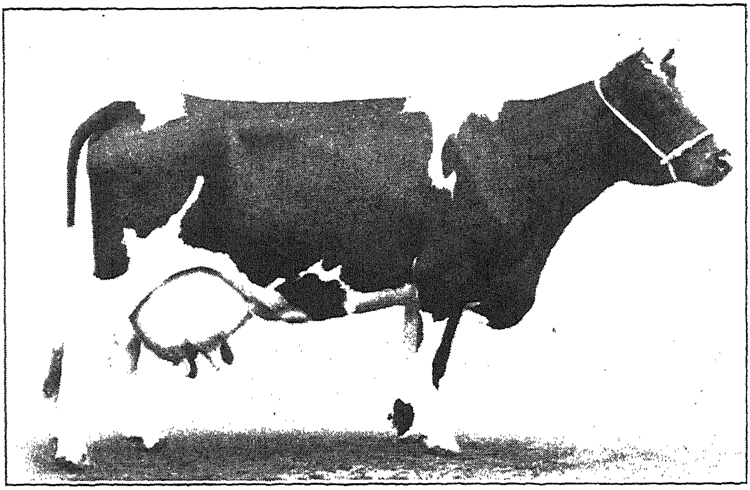
Owner and Breeder, A. Weightman, Esq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	5 Oct., 1933 ...	4	349	41	6,049	Not	tested.	
2	3 Nov., 1934 ...	4	313	18	8,405¼		do.	
*3	3 Oct., 1935 ...	—	—	—	—	—	—	—

*Record incomplete for third lactation.



"MARSHGREEN KATHLEEN." Catalogue number 115.

Exhibited in Class 8 (for British Friesian Cows born on or previous to 1st August, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 6th September, 1929. Age when photographed 6 years and 2 months.

Prizes won at the London Dairy Show, 1935.—First Milking Trial, Fourth Butter Test, Barham and Shirley Challenge Cups, Reserve Morrison Challenge Trophy.

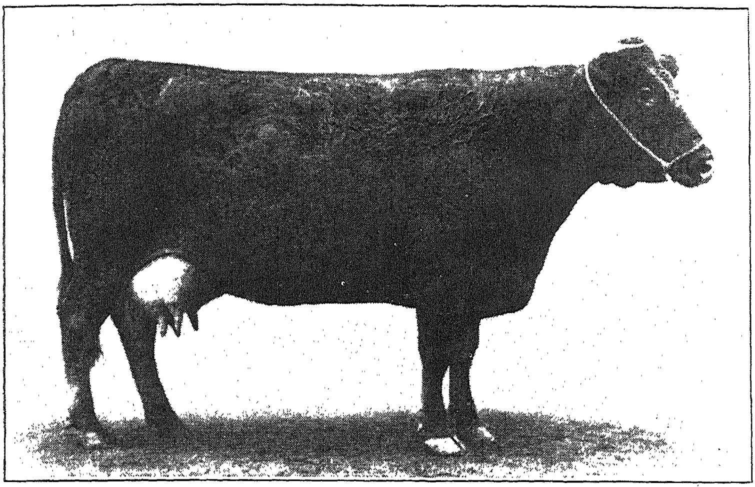
Owner and Breeder, J. H. Brown, Esq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat
					lbs.			lbs.
1	9 Sept., 1931 ...	21	259	10	5,381¼	Not	tested.	
2	26 June 1932 ...	4	378	72	12,409		do.	
3	25 Sept., 1933 ...	5	294	62	16,175¼	Incomple	te tests on	ly.
4	22 Sept., 1934 ...	4	299	60	15,423½		do.	
*5	20 Sept., 1935 ...	—	—	—	—	—	—	—

*Record incomplete for 5th lactation.



"CINDERELLA." Catalogue number 171.

Exhibited in Class 11 (for South Devon Cows born on or previous to August 1st, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 22nd June, 1929. Age when photographed 6 years 4 months.

Prizes won at the London Dairy Show, 1935.—Second Inspection, Extra Inspection, First Milking Trial.

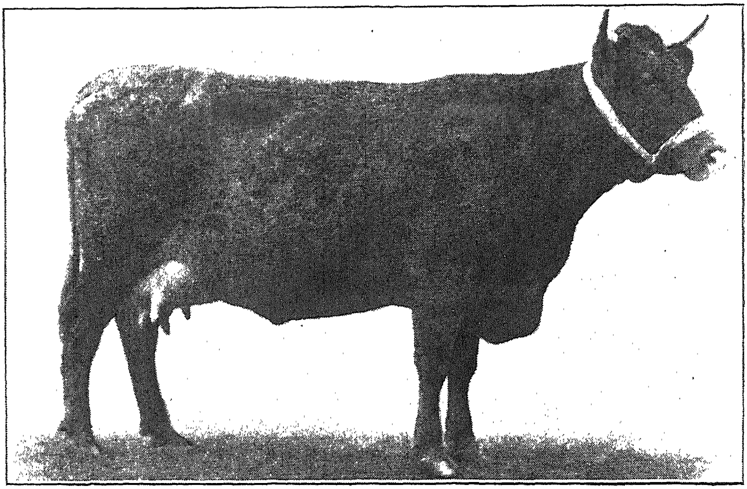
Owners, Dartington Hall, Ltd. *Breeder*, Mr. T. Willing.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	20 Sept., 1932 ...	4	268	—	8,401½	—	—	—
2	19 June, 1933 ...	4	366	65	6,169¾	—	—	—
3	28 Aug., 1934 ...	4	331	67	10,837¾	5	4.32	467
*4	4 Oct., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 4th lactation.



"Milkmaid 3rd." Catalogue number 172.

Exhibited in Class 11 (for South Devon Cows born on or previous to August 1st, 1930.

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 3rd October, 1929. Age when photographed 6 years 1 month.

Prizes won at the London Dairy Show, 1935.—First Inspection, Second Milking Trial, Morrison Challenge Trophy, Reserve for South Devon Herd Book Society's Challenge Cup.

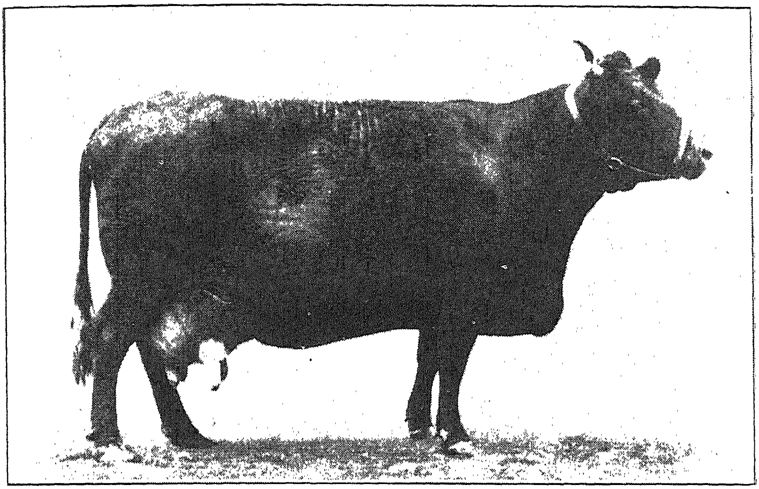
Owner and Breeder, George Wills, Esq.

Details of thirteen body measurements given on page 96.

Lactation Milk Records (Compiled from Information supplied by Owner and Milk Recording Societies).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suekling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	20 Sept., 1932 ...	4	315	56	6,345½	6	5.23	332
2	30 Sept., 1933 ...	4	363	1	6,509	7	4.45	290
3	2 Oct., 1934 ...	4	324	23	8,015	7	4.96	398
*4	18 Sept., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 4th lactation.



“ CORTON COMET.” Catalogue number 186.

Exhibited in Class 14 (for Devon Cows).

British Dairy Farmers’ Association official photograph, taken on October 23rd, 1925.

Born 20th July, 1926. Age when photographed 9 years 3 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, Extra Inspection, First Milking Trial, First Butter Test, Busk Challenge Cup.

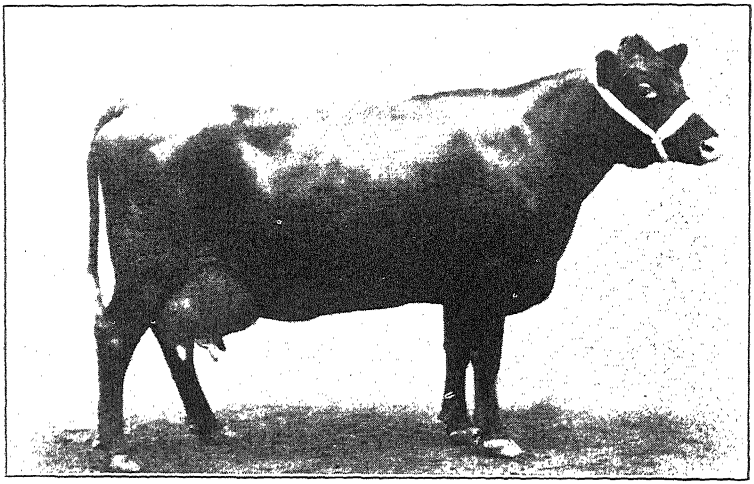
Owner and Breeder, H. G. Mayo, Esq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average per-centage.	Lactation yield of Fat.
					lbs.			lbs.
1	29 June, 1929 ...	16	239	82	4,392	—	—	—
2	1 Jan., 1930 ...	16	225	97	5,477½	—	—	—
3	5 May, 1931 ...	8	246	88	6,841¼	—	—	—
4	11 Apr., 1932 ...	5	441	58	9,729¼	9	4.50	438
5	28 Aug., 1933 ...	4	303	46	9,321¼	6	4.04	377
6	16 Aug., 1934 ...	5	363	25	12,476¾	7	3.95	493
*7	13 Sept., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 7th lactation.



"SAMFORD WITCHGIRL." Catalogue number 202.

Exhibited in Class 15 (for Red Poll Cows, born on or previous to August 1st, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

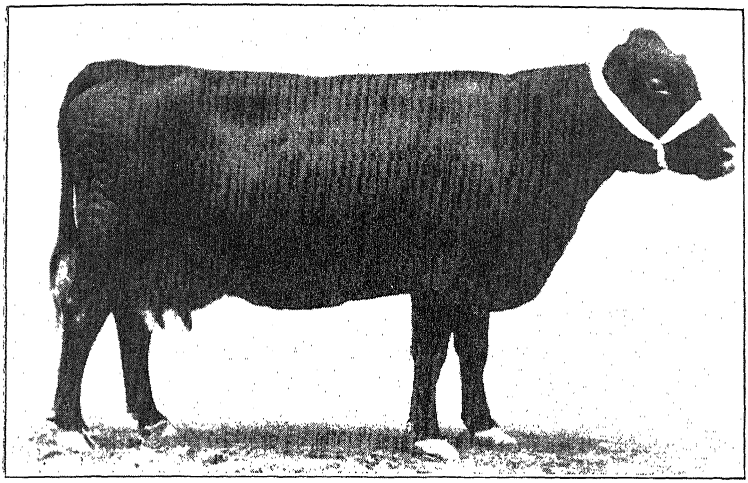
Born 10th December, 1928. Age when photographed 6 years 10 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, Extra Inspection.

Owner and Breeder, Stuart Paul, Esq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS.—No milk records available.



"COMBWELL ROSIE." Catalogue number 209.

Exhibited in Class 15 (for Red Poll Cows, born on or previous to August 1st, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 21st February, 1930. Age when photographed 5 years 8 months.

Prizes won at the London Dairy Show, 1935.—First Milking Trial, Third Butter Test.

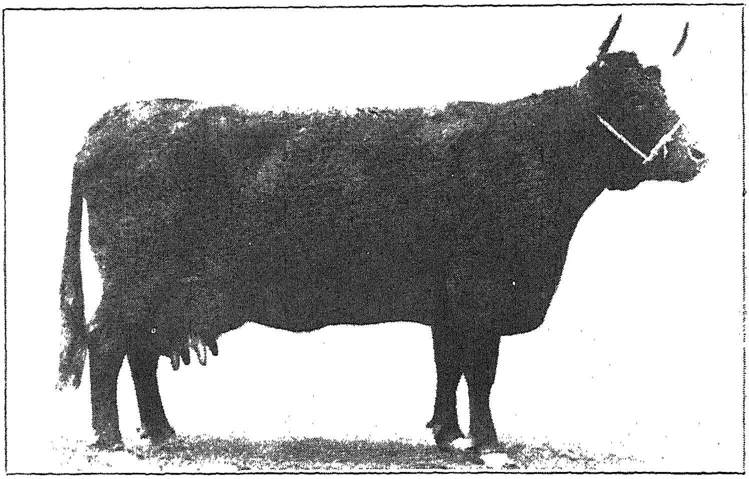
Owner and Breeder, Mrs. H. D. Lewis.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	19 Sept., 1932 ...	6	338	40	7,099¼	—	—	—
2	8 Oct., 1933 ...	4	345	4	7,819¼	4	3.84	300
3	26 Sept., 1934 ...	4	294	63	10,419	6	3.78	394
*4	22 Sept., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 4th lactation.



"GRACE." Catalogue number 249.

Exhibited in Class 18 (for Welsh Black Cows).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 5th August, 1930. Age when photographed 5 years 3 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, First Milking Trial, First Butter Test.

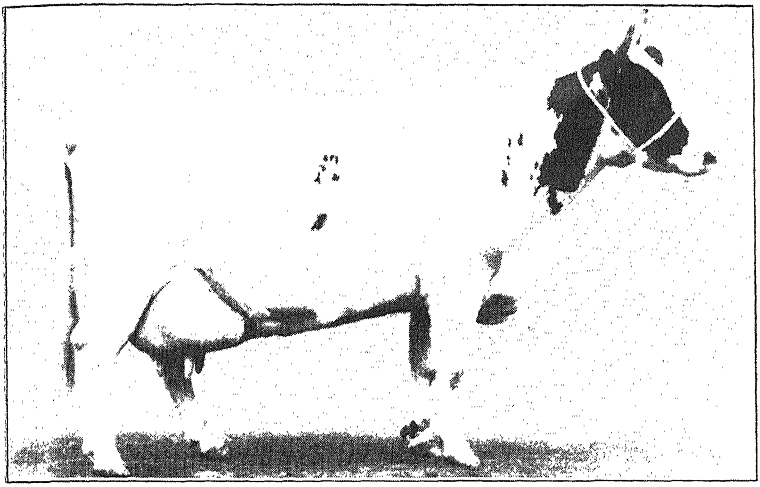
Owner and Breeder, Hon. Lady Shelley Rolls.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	6 Nov., 1934 ...	4	259	53	$10,854\frac{3}{4}$	—	—	—
*2	18 Sept., 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 2nd lactation.



" THORNHILL MERMAID 2ND." Catalogue number 260.

Exhibited in Class 19 (for Ayrshire Cows, born on or previous to 1st August, 1930).

British Dairy Farmers' Association official photograph, taken on 23rd October, 1935.

Born 19th May, 1929. Age when photographed 6 years 5 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, Extra Inspection, First Milking Trial, First Butter Test, Supreme Individual Championship Challenge Trophy, Rowallan Cup, and Spencer Cup. One of the group winning the Bledisloe Challenge Trophy.

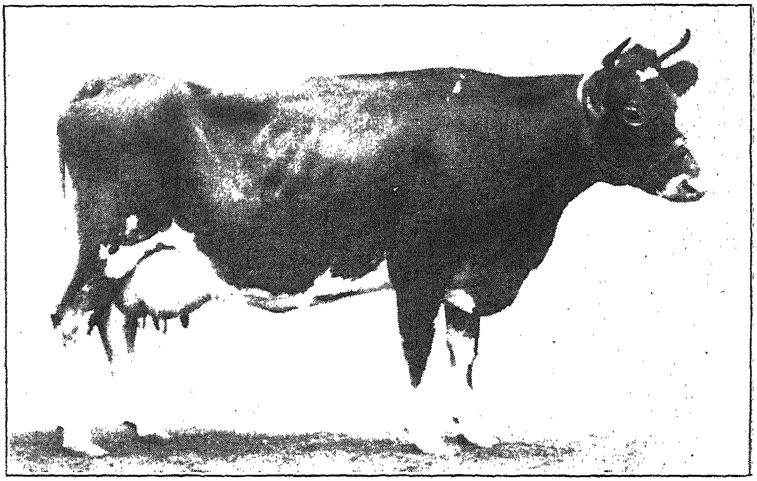
Owner, David Smith, Esq. *Breeder*, Mr. A. Cunningham.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	4 Sept., 1932 ...	0	327	65	12,520	13	4.07	510
2	2 Oct., 1933 ...	0	219	121	11,980	8	4.03	483
3	8 Sept., 1934 ...	0	299	88	14,660	11	4.27	626
*4	2 Oct., 1935 ...	—	—	—	—	—	—	—

*Record incomplete for 4th lactation.



"DAIRYMAID OF RIDUNA." Catalogue number 310.

Exhibited in Class 22 (for Guernsey cows, born on or previous to 1st August, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 17th January, 1930. Age when photographed 5 years 9 months.

Prizes won at the London Dairy Show, 1935.—Second Inspection, First Milking Trial, First Butter Test, Stagenhoe Challenge Cup.

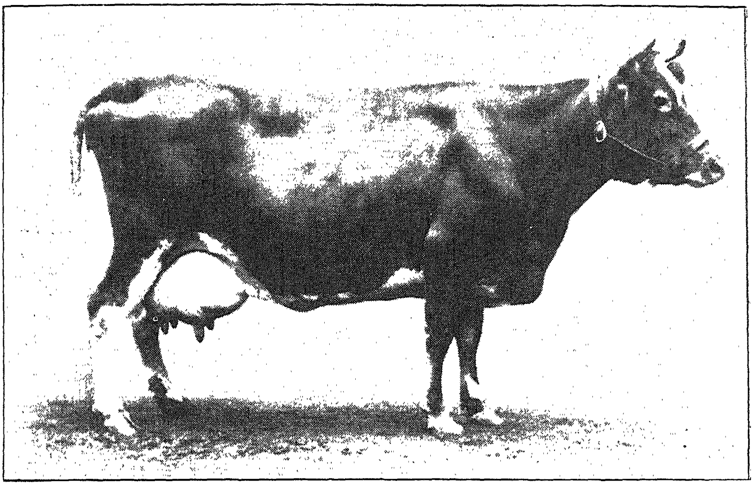
Owner, Carl Holmes, Esq. *Breeder*, D. S. le Cocq.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	27 Sept., 1932 ...	4	561	70	17,590	8	4.77	839
2	24 June, 1934 ...	4	402	57	12,794	8	4.66	596
*3	30 Sept., 1935 ...	—	—	—	—	—	—	—

*Record incomplete for 3rd lactation.



" Bon Espoir Lily 4th." Catalogue number 317.

Exhibited in Class 22 (for Guernsey Cows, born on or previous to 1st August, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 14th February, 1928. Age when photographed 7 years 8 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, Extra Inspection, Second Milking Trial.

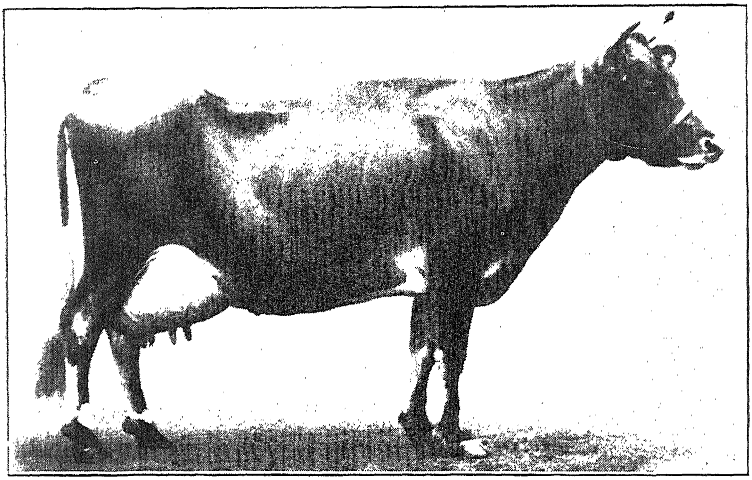
Owner, Captain H. J. Pilbrow. *Breeder*, Mr. J. Le Page.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	6 Sept., 1930 ...	4	490	53	12,006¾	9	4.55	546
2	10 Mar., 1932 ...	4	353	18	8,830	5	4.12	364
3	20 Mar., 1933 ...	4	324	15	7,588	7	4.45	338
4	26 Feb., 1934 ...	13	435	60	8,342	6	4.18	349
*5	19 July 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 5th lactation.



"WHITE HILL HAPPY MAY." Catalogue number 349.

Exhibited in Class 25 (for Jersey Cows, born on or previous to 1st August, 1930).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 21st March, 1930. Age when photographed 5 years and 7 months.

Prizes won at the London Dairy Show, 1935.—First Milking Trial, Breeders' Milk Challenge Trophy, National Milk Challenge Cup.

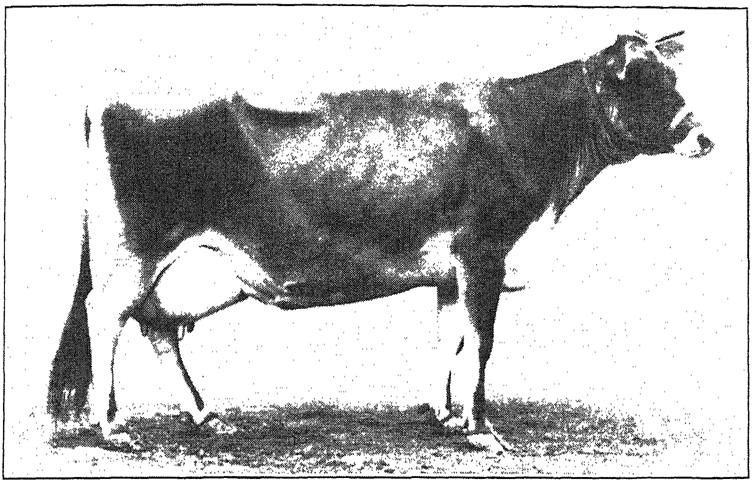
Owner and Breeder, Mrs. R. M. Foot.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	19 July, 1932 ...	4	343	44	7,205¾	6	5.24	378
2	14 Aug., 1933 ...	4	310	85	7,544¾	6	4.76	359
3	17 Sept., 1934 ...	4	283	72	13,439¼	6	4.20	564
*4	11 Sept., 1935 ...	—	—	—	—	—	—	—

*Record incomplete for 4th lactation.



" EUCALIA'S JEST." Catalogue number 361.

Exhibited in Class 25 (for Jersey Cows, born on or previous to August 1st, 1930.

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 20th July, 1929. Age when photographed, 6 years and 3 months.

Prizes won at the London Dairy Show, 1935.—First Inspection, Fourth Milking Trial.

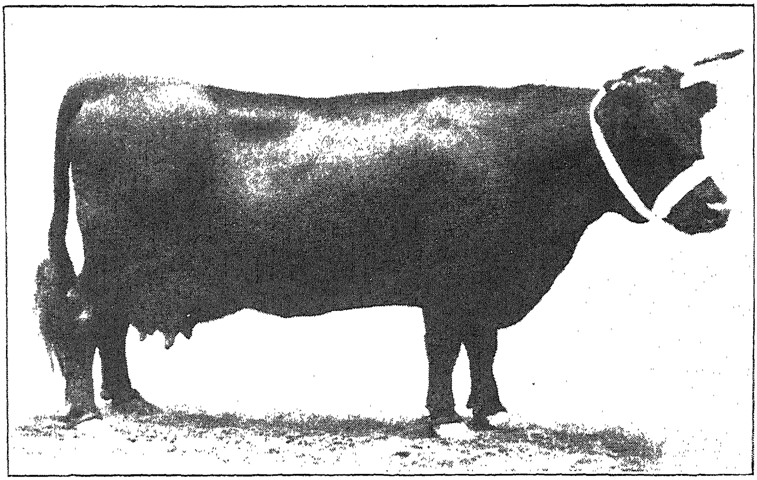
Owners, Ovaltine Dairy Farm. *Breeder*, Mr. J. A. Perrée.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average per-centage.	Lactation yield of Fat.
					lbs.			lbs.
1	—	—	—	—	—	—	—	—
2	12 May, 1933 ...	26	284	51	10,326	3	5.29	546
3	8 May, 1934 ...	10	385	60	11,474¼	11	5.14	590
*4	6 Aug., 1935 ...	5	—	—	—	—	—	—

*Record incomplete for 4th lactation.



"GRINSTEAD DOLLY 2ND." Catalogue number 387.

Exhibited in Class 30 (for Dexter Cows).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

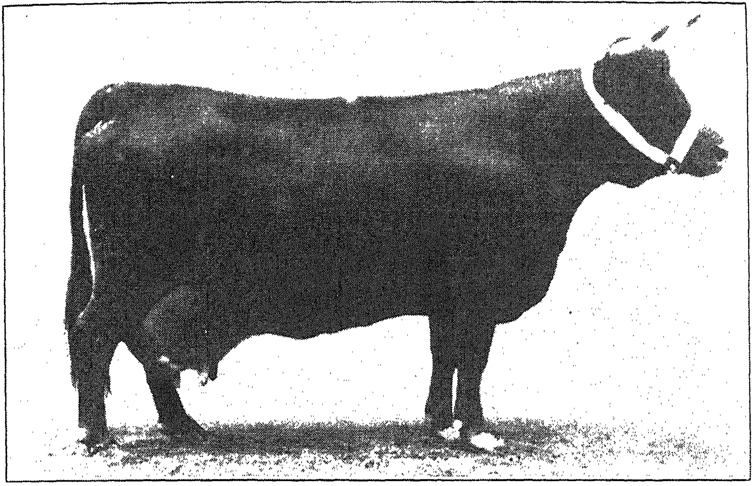
Born 18th May, 1929. Age when photographed 6 years 5 months.

Prizes won at the London Dairy Show 1935.—First Inspection, Extra Inspection, Third Milking Trial.

Owner, Comtesse Elizabeth de Pret Roose. *Breeder*, Lady Loder.

Details of thirteen body measurements given on page 96.

LACTATION MILK RECORDS.—Milk Records incomplete.



“GRINSTEAD NIGHTINGALE 3RD.” Catalogue number 389.

Exhibited in Class 30 (for Dexter Cows).

British Dairy Farmers' Association official photograph, taken on October 23rd, 1935.

Born 19th December, 1925. Age when photographed 9 years 10 months.

Prizes won at the London Dairy Show, 1935.—Second Inspection, First Milking Trial, First Butter Test, Loder Challenge Cup.

Owner and Breeder, Lady Loder.

Datails of thirteen body measurements given on page 96.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average per-centage.	Lactation yield of Fat.
					lbs.			lbs.
1	15 Aug., 1928 ...	4	294	66	5,544	—	—	—
2	14 Aug., 1929 ...	4	294	87	6,646	—	—	—
3	3 Sept., 1930 ...	4	231	—	5,630¾	—	—	—
4	26 Apr., 1931 ...	4	248	117	3,375¾	—	—	—
5	29 Apr., 1932 ...	4	367	12	9,306¼	—	—	—
6	17 May, 1933 ...	4	294	68	5,643¼	4	3.77	213
7	18 May, 1934 ...	4	278	78	8,635¼	5	4.02	347
*8	13 May, 1935 ...	4	—	—	—	—	—	—

*Record incomplete for 8th lactation.

MEASUREMENTS OF FIRST PRIZE WINNERS, LONDON DAIRY SHOW, 1935.

TAKEN OCTOBER 23RD, 1935, BY S. BARTLETT.

Catalogue Number of Animal	17	18	66	74	86	90	112	115	171	172	186	202	209	249	260	310	317	349	361	387	389
First Prize— Inspection or Milking Trials	M. T.	Insp.	M. T.	Insp.	Insp.	M. T.	Insp.	M. T.	M. T.	Insp.	Insp. & M. T.	Insp.	M. T.	Insp. & M. T.	Insp. & M. T.	M. T.	Insp.	M. T.	Insp.	Insp.	M. T.
Name of Animal.	Steppingley Clover's Gift 4th.	Wild Eyes Duchess 4th.	Cantab Janet 3rd.	Garnet's Jewel.	Bendish Nancy 25th.	Histon Duchess 20th.	Herrington Keg O'Milk.	Marshgreen Kathleen.	Cinderella.	Milkmaid 3rd.	Corton Comet.	Samford Witchgirl.	Combwell Rosie.	Grace.	Thorn Hill Mermaid 2nd.	Dairymaid of Riduna.	Bon Espoir Lily 4th.	White Hill Happy May.	Eucalia's Jest.	Grinstead Dolly 2nd.	Grinstead Nightingale 3rd.
Breed.	Pedigree Shorthorn.	Pedigree Shorthorn.	N.P. Shorthorn.	N.P. Shorthorn.	Lincoln Red.	Lincoln Red.	British Friesian.	British Friesian.	South Devon.	South Devon.	Devon.	Red Poll.	Red Poll.	Welsh Black.	Ayrshire.	Guernsey.	Guernsey.	Jersey.	Jersey.	Dexter.	Dexter.
Live Weight	lbs. 1,501	lbs. 1,295	lbs. 1,387	lbs. 1,340	lbs. 1,313	lbs. 1,348	lbs. 1,578	lbs. 1,395	lbs. 1,708	lbs. 1,872	lbs. 1,542	lbs. 1,098	lbs. 1,145	lbs. 1,380	lbs. 1,212	lbs. 1,285	lbs. 1,112	lbs. 914	lbs. 880	lbs. 730	lbs. 770
MEASUREMENTS.																					
(*a*) Length of Body	in. 62.1	in. 57.5	in. 59.7	in. 57.0	in. 57.0	in. 61.5	in. 63.0	in. 60.4	in. 62.0	in. 65.3	in. 58.3	in. 54.4	in. 54.2	in. 58.2	in. 57.2	in. 58.3	in. 56.5	in. 51.9	in. 54.4	in. 46.8	in. 46.0
(*b*) Length of Hindquarters ...	20.5	18.5	19.6	19.2	19.3	20.7	20.6	19.6	21.8	22.7	19.6	18.7	18.1	19.3	18.2	19.6	20.4	17.9	18.3	15.9	16.1
(*c*) Height at Withers	55.2	51.0	53.7	50.9	51.6	54.6	57.4	54.4	54.3	58.0	50.2	49.4	47.5	51.3	50.5	52.5	48.1	49.0	47.7	38.7	41.1
(*d*) Height at Hooks	56.4	51.5	54.7	52.0	52.6	55.1	57.2	55.4	56.0	59.4	51.6	50.5	48.5	52.0	52.2	52.5	48.4	48.3	46.5	39.9	41.7
(*e*) Depth of Chest	29.8	38.5	29.5	28.9	28.1	29.2	31.3	30.8	31.5	31.3	30.3	27.8	26.7	29.3	28.4	29.2	28.3	26.6	26.3	23.5	24.1
(*f*) Width of Chest	17.9	16.5	18.8	18.6	18.2	16.7	19.2	18.3	19.4	21.8	21.3	16.0	16.8	18.3	14.5	15.8	15.3	13.1	12.0	14.3	14.2
(*g*) Width of Hooks	24.9	21.7	24.6	23.4	23.0	23.4	25.1	22.2	24.0	25.6	24.3	21.0	20.5	22.7	21.6	22.3	20.3	19.3	18.7	17.3	17.5
(*h*) Width of Thurls	21.3	19.3	20.8	20.6	20.2	20.7	22.1	20.3	20.3	23.1	19.7	18.1	18.0	20.4	19.6	17.5	17.6	16.0	15.4	15.0	14.8
(*k*) Girth of Barrel	98.8	90.7	91.0	95.4	92.2	90.5	96.3	95.1	101.0	103.0	100.4	85.8	87.4	87.4	87.1	87.6	89.8	84.0	84.6	75.8	76.3
(*l*) Girth behind Shoulder ...	78.3	74.0	77.0	77.9	76.3	77.5	82.0	80.0	84.0	87.2	83.6	72.0	71.4	77.1	73.9	74.5	73.2	66.1	65.5	62.0	63.9
(*m*) Girth of Foreleg	7.5	7.0	7.1	7.1	7.2	7.6	7.2	7.3	7.4	7.7	7.1	6.6	6.9	7.3	7.0	6.8	6.3	6.0	5.7	6.3	6.1
(*n*) Length of Head	21.8	18.1	20.2	19.5	20.5	20.4	20.8	22.2	21.0	23.1	19.7	18.9	19.2	19.4	20.0	19.8	19.0	17.5	17.2	17.2	16.8
(*p*) Width of Head	9.5	8.4	9.0	8.9	8.5	8.9	8.9	9.0	9.2	9.4	8.8	8.9	9.4	9.2	8.4	8.9	8.7	8.5	8.2	8.2	9.0

ANNUAL REPORT OF THE CONSULTING CHEMIST

By T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.

The number of samples submitted by the members for examination during the past year was somewhat smaller than in recent years. The articles have been mostly milk samples for routine analysis, and as such only call for one special comment in this report.

This comment arises from the fact that during the year, two instances have occurred in which the analytical figures obtained by the Public Analyst have differed from the results obtained in the laboratory. No explanation has been forthcoming, but in one instance in which proceedings were instituted against a member, the third sample was submitted to the Government Chemist for his examination. The figures obtained by the Government Chemist also differed from both of the results by an amount far exceeding any experimental error. In this instance, the case against the member was dismissed, but not until he had been put to considerable expense.

One possible explanation seems to be that, particularly, in the winter, when the Inspector often secures the sample in the dark, delay may occur whilst he finds the three sample bottles, arranges for the corking and sealing thereof, and writes the labels. The delay may be so protracted that the cream in the jug rises to a marked extent. Consequently the milk poured into the first bottle may then contain most of the cream. If the Inspector then proceeds to cork and seal that bottle before filling the other two, further time is allowed for the cream to separate. In fact by the time the third bottle is filled, it may receive almost skimmed milk.

How far this suggestion may explain the observed divergence in the analytical results it is difficult to say, but a careful examination reveals the disquieting fact that a danger of injustice being done to the dairy farmer definitely exists.

It has also been suggested that when the Inspector divides his sample into three, he inadvertently pours into three differently numbered bottles.

Samples of cream and butter have been examined for preservatives, and one sample of cream was found to contain both preservative and a high percentage of artificial colouring matter.

THE DAIRY SHOW OF 1935

By SIDNEY EDWARDS.

The Fifty-Seventh Annual Dairy Show held by the British Dairy Farmers' Association was opened to the public at 8 a.m. on Tuesday, October 22nd, and closed on Friday, October 25th at 9 p.m. The total entries showed an increase on those of 1934, and the space available was taxed to its limit. Cattle and Goats were housed in the Gilbey Hall. The number of cows at the Show was ten less than in 1934. There were also slight reductions in the number of Goats due to a more limited classification.

With a view to meeting the wishes of exhibitors who prefer their cows being judged in the Hall, rather than in the street, the Council decided that judging in the Cattle section should commence at 8 a.m. on Tuesday. The work of the Judges was carried out in five rings and with the exception of two Classes, was completed by 11.30 a.m.—all the Classes being judged inside the Hall.

Dairy Shorthorns were numerically strong. In the Senior Cow Class nine animals paraded before the Judges. The First Prize in the class was awarded to a new exhibitor—Sir Martin Melvin—who showed "Wild Eyes Duchess 4th," a nice quality cow of dual purpose type.

In the Young Cow Class, of the thirty entries, twenty three came before the Judges. Mr. John Crowe's "Fair Foggathorpe" headed her class, and later in the day was adjudged to be the best Pedigree Dairy Shorthorn Cow or Heifer upon Inspection only, and her owner was awarded the "Calvert" Challenge Cup. The winner in the Senior Class was placed in the reserve position for this Cup. This class provided two of the trio, that won the "Thornton" Challenge Cup for Major G. Miller Mundy, and was numerically the strongest class in the Show, the animals presented being fit to show in any company

Of the fourteen Dairy Shorthorn Heifers entered, nine appeared before the Judges. All these were of good dairy type; the leader of the class yielding over four gallons of milk in the Milking Trials.

Non Pedigree Dairy Shorthorns Cows were few in number. Five good cows were paraded in the Senior class. The heifers were of excellent quality, those leading the class doing well in the Milking Trials.

Lincolnshire Red Shorthorn Classes were well supported, but lacked uniformity of type.

British Friesians had many absentees. In the senior class, only eight paraded of twenty-four entered. The prize-winners were of good type, the remaining animals lacked uniformity but showed milking ability.

The young cows showed a decided improvement, the prize-winners being extremely good and likely to have a successful future.

Heifers were undoubtedly the best class, as there were a number of animals that were pleasing in every way.

The "Thornton" Challenge Cup for three Pedigree British Friesians was awarded to a very productive trio owned by Mr. Cecil Ball ; one of the trio "Oakham Dainty Gem" being a daughter of of the great cow "Oakham Dainty," Supreme Champion at the 1932 and 1934 Dairy Shows. "Oakham Dainty Gem" was awarded a V.H.C. in her class and secured First Prize in the Milking Trials.

South Devons were fewer in number than was the case a year ago. Five cows came before the Judge in the senior class. The leader, "Milkmaid 3rd," of nice dairy character, also took second prize in Milking Trials, and her owner was awarded the "Morrison" Challenge Trophy for the cow gaining the greatest total number of points at three consecutive Dairy Shows. The animal awarded First Prize in the Young Cow Class was very promising and should be heard of again. The three heifers exhibited were typical of the breed and carried good udders.

The Devon Cow Class had four animals shown by three exhibitors. The winner also gained First Prize in both Milking Trials and Butter Tests.

Red Polls were present in force and were a first class collection—not too easy to place owing to the quality of the exhibits.

The winner in the Senior Class was a typical specimen of the breed, having short legs and a correct udder. The second and third prize-winners were of the same type, and were closely followed by others showing good dairy points.

The class for young cows was also of high quality, but did not quite reach the standard of the older animals.

The Heifers were very promising, the winner being level and full of quality. The second carried a wonderful udder and yielded six gallons in the Trials.

On the whole the Red Polls gave a fine exhibition both in numbers and quality.

Welsh Blacks were an entry of eight, six of them being present. The animal placed first was an exceptionally good cow, of excellent conformation, with a well shaped udder and uniform teats. The remaining animals had either badly shaped udders or ugly teats. A pleasing feature was the increased number of entries.

Ayrshires were allotted three classes, a young cow class being included for the first time. The total number of entries reached fifty-five, the same number as that of last year.

The animals in the Senior Class were all good representatives of the breed. The winning animal was an outstanding cow and compared favourably with other Ayrshire cows of previous years.

The leaders of the Young Cow Class were also good cows, two of them being included in the winning Bledisloe team.

The thirteen heifers were of level quality, and are likely to develop into good Dairy Show cows in future years.

The Guernsey exhibits were a welcome improvement, and the best collection seen at Islington for some years past. In the Senior Class there were some outstanding animals. Those cows receiving inspection prizes were also the prize-winners in the Milking Trials. The younger cows were smart dairy-like animals, while the heifers were of outstanding merit and should give a good account of themselves in the furture.

Jerseys were particularly good in the classes for cows. Heifers were not a strong class.

The classes for Kerry Cows and Kerry Heifers were cancelled owing to lack of entries.

Dexter cows were a small class of four animals, sent forward by two lady exhibitors.

The class for Dexter Heifers was cancelled owing to lack of entries.

BULLS (Progeny of)

There was a decrease of five entries in the Progeny Classes as compared with those of 1934. The progeny of thirty-one bulls were entered for the awards, which are based on progeny performance in the Milking Trials. Seven breeds were represented.

BLEDISLOE CHALLENGE TROPHY

An enormous crowd witnessed the parade of seven teams, each of six cows, which competed for the Bledisloe Trophy ; the greatest contest in the dairy stock world. The high general excellence of the Ayrshire team with their well developed bags, both fore and aft—made them comfortable leaders. The Shorthorn team, placed second, presented a well balanced team of one type, all looked well from behind, but lacked the forebag development of the winners.

The Ayrshires were awarded the maximum of 500 points on Inspection. The addition of those points to the 946.67 points gained in the Milking Trials gave a total of 1,446.61. Shorthorns were awarded 400 points on Inspection, making with their Milking Trial points of 947.22, a total score of 1,347.22.

The Ayrshires were the winners of the Trophy for the sixth time.

Viscount Bledisloe watched the placings with interest, and at the conclusion presented his Trophy to Col. Houldsworth, President of the Ayrshire Herd Book Society.

SUPREME INDIVIDUAL CHALLENGE TROPHY.

Eleven cows competed for the Supreme Trophy, representing six breeds. The award is made on points gained by Inspection, Milking Trials and Butter Tests.

The maximum of 125 points on Inspection was awarded to Mr. David Smith's Ayrshire cow "Thornhill Mermaid 2nd," which added to 170.91 gained in the Milking Trials, and 53.75 in the Butter Tests, gained a total of 349.66 points and a clear lead over her nearest rival—a Shorthorn cow "Harescombe Margaret,"—that gained a total of 331.42 points. In addition to gaining the Supreme Trophy "Thornhill Mermaid 2nd" had earlier been awarded the "Spencer" Challenge Cup.

In accordance with the practice of recent years, the Milking Trials and Butter Tests were carried out on Sunday and Monday prior to the opening of the Show to the general public.

GOATS.

Owing to the elimination of the Kid classes, the total number of goats exhibited were fewer than last year. On the whole the quality of the animals shown was good, particularly was this noticeable in the Saanen and British Saanen classes, where the importation of fresh blood from the continent some ten years ago, has made a marked improvement, both in milk yield and the physical character of these breeds.

The most noteworthy milker amongst the adults was a large framed goat that kidded during the recorded year, and gave a yield of over 5,000 lbs.

Goatlings were very well grown, and healthy looking.

CHEESE.

Exhibits of Cheese showed an increase of six on those of 1934, and were staged in the Barford Hall.

The class for 6 Stilton Cheeses, open only to Dairy Farmers, did not attract an entry. That for 12 Stilton Cheeses obtained fifteen entries. The entries on the whole were good. The prize Cheese was excellent in quality. Some of the lots were immature.

Cheddar Truckles were a very creditable exhibit, both as regards quality and finish. The class for 2 cheeses not less than 40 lbs. attracted seventy-one entries. The prize lots were very fine indeed. The First Prize lot was an almost perfect example of Cheddar at its best, and was awarded both the "Lonsdale" Challenge Trophy for the best exhibit of cheese made on a farm in England, Scotland or Wales and the Champion Cup (presented by the Corporation of the City of London) for the best exhibit of Cheddar Cheese. Unfortunately the bulk of the entries in the class fell far short of the ideal. Too many were stiff in texture and seemed lacking in quality.

Long Keeping Cheddars and Truckles, with an entry of ten, had only one faulty exhibit. The First Prize lot was almost equal to the Champion exhibit.

In spite of the heat of last summer the flavour of these Long Keeping Cheese was clean and true. The class for eight Cheeses attracted sixty-three entries. The prize winners and the commended lots were exceptionally good in flavour, quality and colour, all that could be desired. The general finish of practically all the exhibits showed a great improvement on previous years.

Small Cheddars not exceeding ten pounds each was a small class of six exhibits of moderate quality.

Cheddar Cheese produced in the British Empire (Overseas) brought eighteen entries from New Zealand, six from Australia and two from South Africa. They made a fine Exhibit of average quality with a few outstanding lots. New Zealand exhibits were awarded the Gold, Silver and Bronze Medals, also the Bledisloe and Hansen Trophies. The class for eight Cheshire Cheeses, were an entry of thirty-seven that made a very good show. The First prize lot which also took the City of London and Bland Cups was placed in the reserve position for the Lonsdale Trophy. Coloured Cheeses of not less than 40 lbs. each had two exhibits in excess of last year, and were extremely uniform in quality. Uncoloured Cheese of sixteen lots were very good. The Long Keeping Cheese were of exceptional flavour.

Forty makers competed in the Class open to those who have never won a Prize for Cheshire Cheese at any Show of the British Dairy Farmers' Association. The Judges were impressed by the uniformity of the exhibits. Small Cheshires not exceeding 10 lbs. were of good quality.

Ayrshire Dunlops was a very good class and contained a number of very well made cheeses, clean in flavour and of the soft typical texture of this variety.

The thirty-four exhibits of Factory Cheese shewed a great improvement on previous years.

Leicester Cheese were few in numbers but were of good quality.

Quick ripening Lancashire Cheese were uniformly good. In the Long Keeping Class some of the exhibits were strong and off-flavoured, probably due to storing at too high a temperature.

Uncoloured Derby Cheese, with an entry of seven, were of fair quality. A Gloucestershire exhibit took first place in this class, the remaining prizes being awarded to Derbyshire exhibits. Double Gloster's were a strong class of fourteen exhibits, of average quality and lacked uniformity.

Single Gloster's, though fewer in numbers, were very good.

Caerphilly (4 Cheeses not exceeding 8 lbs. each). With the exception of the prize winning lot, all the others were not up to the usual Dairy Show standard. Very few exhibited the characteristics of the true Caerphilly, being much too yellow in colour, tough in texture and lacking in quality.

Wensleydale (Blue-Moulded) were a small entry and slightly below the average in quality. The classes for Small, Hard Pressed Cheeses were well supported, with a variety of types that caused the Judge some difficulty in arriving at his awards.

A new class for Small, Hard Pressed Cheese not exceeding 2 lbs. each got twenty five entries, many of them from the West of England.

The Inter County Competition only attracted four entries, each exhibit being awarded a prize. The class deserves more support.

Sweet Cream Cheese with twenty-five exhibits, were excellent in flavour and the texture of the prize cheese outstanding, in some cases the packing could be improved.

Unripened Soft Cheese with fewer entries, were perfect in flavour and texture. Most points in this class were lost in packing.

Collections of produce numbered eleven, all the exhibits were well packed.

BACON AND HAMS.

The classes open to curers only, were not well supported. The class for Four Sides of Smoked Bacon got five entries, four of them being staged. The prize-winning exhibit was exceedingly well turned out, the sides being splendidly proportioned. Pale Dried Sides of four exhibits had been well selected ; the Prize awards in both classes going to the same Curers.

The conditions laid down for the Bacon Classes were similar to those in force last year.

The entries for the " Whitley " Cup and First Cross pigs constitute a record. The staged exhibits were interesting, and of a high standard of merit.

Of the twelve entries for the " Whitley " Cup, ten were of the Large White breed, the remaining exhibits being Welsh pigs. The sides were of great length and cut well. The whole class showed considerable improvement on previous years. The winning exhibit was also awarded the Harris Cup for the four best sides in any one entry, in the Bacon Pig Classes.

The class for two Pedigree Pigs got seventeen entries, one each of Middle White and Long White Lops, the remainder Large Whites. An exhibit of Large White sides secured first place and the " Beale Cup."

First Cross Pigs were an entry of sixteen. Sides of Large White and Essex were awarded First Prize and Bledisloe Cup ; the Second prize going to an exhibit of Large White and Middle White sides ; A Tamworth and Large White cross securing the Third place.

Of the three entries in the Recorded class, two were Large White and the other a Large White—Large Black cross. For some years past, sides from the Large White—Large Black cross have succeeded in winning the " Pig Recording Cup." for Mr. T. L. Ward. On this occasion the Cup was won by Mr. H. R. Davidson's Large White entry with a margin of 10 points. Both Mr. Davidson's and Mr. T. L. Ward's exhibits gained First Class awards.

Bacon—produced in the British Empire (Overseas) brought six Canadian and five South African exhibits. The Silver and Bronze Medals were both awarded to Canada Packers, Ltd. of Toronto, whose exhibits were well butchered and well selected.

The Ham classes were of level excellence, and very few points separated the entries in each class.

BUTTER.

Exhibits of Butter were more numerous than in 1933 and 1934. The quality varied very considerably. Many samples were outstanding as regards texture, while others were weak in flavour. In many cases greater attention to making up and general appearance was necessary.

The quality of Unsalted and Salted Butter in boxes showed a distinct advance, the uniformity was particularly striking. The prize-winning lots attained a very high standard of excellence. It was noticeable that the majority of the Awards went to Irish Creameries, but Messrs Adams (Wholesale) Dairies of Leek, Staffs., succeeded in retaining a First and Fourth Prize in the home country. May it be an encouragement to other English Creameries for the future !

Fancy and Ornamental Butter was of the usual excellent standard.

Salted Butter produced in the British Empire (Overseas) had fifty exhibits, Forty-seven were from Australia, two from New Zealand and one from South Africa. The standard of quality was not outstanding ; in a very large number of exhibits the butter was overworked. In practically every case the general appearance, packing, and finish, was excellent ; some exhibits were on the salty side.

The Unsalted Butters were mainly of Australian origin, and were disappointing in quality, owing to the fact that the exhibits were over-pasteurized and lacked the cool sweet flavour usually associated with, and looked for in, Unsalted Butter. The general packing was good.

CREAM.

Cream entries showed an increase of seven. Clotted Cream from Factories was satisfactory. Much of the homogenized cream was too pale and fluffy in texture.

Clotted Cream—other than from Wholesale Creameries—was mostly of a high standard of quality and well packed. Cream other than clotted was of excellent quality, a few samples however were too granular.

PARTICULARS OF BACON PIG

Catalogue Number.	Exhibitor's Name.	No. of Pigs.	Breed.	Average Age.		Average Dead Weight.	Live Weight.	Dead Weight.	Percentage Loss Live Weight to Dead Weight.
				Mths.	Days	lbs.	lbs.	lbs.	lbs.
	CLASS 88.—Two hogs and two gilts—pure-bred.								
1128	The Earl of Radnor ...	4	Large White	6	8	145.75	774	583	24.6
1129	Welsh Pig Society	1	Welsh	6	16	147	196	147	25.0
1130	Chivers & Sons, Ltd. ...	4	Large White	6	16	147	780	588	24.6
1132	A. E. Law	4	Large White	6	5	156.25	808	625	22.6
1133	H. Neaverson	3	Large White	6	5	150.66	582	452	22.3
1134	H. R. Davidson	4	Large White	6	16	154.75	793	619	21.9
1135	R. Silcock & Sons, Ltd. ...	4	Large White	6	13	154.75	789	619	21.5
1136	A. Lewis	2	Large White	6	15	150	386	300	22.2
	CLASS 89.—One hog and one gilt—pure-bred.								
1140	The Earl of Radnor ...	2	Large White	6	8	146.5	387	293	24.2
1142	Chivers & Sons, Ltd. ...	2	Large White	6	18	164.5	430	329	23.4
1144	Herts. Inst. of Agriculture	2	Large White	6	15	155	396	310	21.7
1145	H. R. Davidson	2	Large White	5	2	155.5	398	311	21.8
1146	A. E. Law	2	Large White	6	6	146	378	292	22.7
1147	H. Neaverson	1	Large White	6	3	147	190	147	22.6
1148	J. F. Evans	1	Large White	5	9	140	175	140	20.0
1150	C. L. Coxon	1	Large White	6	13	152	190	152	20.0
1151	H. A. Jasper	1	Nat. Long W. Lop-Eared	6	16	155	196	155	20.9
1152	T. Wyndham Vint	2	Large White	6	15	149	387	298	22.9
1153	Jack R. Major	2	Large White	6	18	159.5	401	319	20.4
1154	R. Silcock & Sons, Ltd. ...	2	Large White	6	10	158.5	404	317	21.5
1155	H. R. Davidson	1	Large White	6	14	145	193	145	24.8
	CLASS 90.—One hog and one gilt—first cross.								
1157	H. R. Davidson	2	Tamworth x Large White	6	13	149	387	298	22.9
1158	E. Harding	2	Large White x Wessex ...	6	18	168.5	417	337	19.1
1159	A. E. Law	1	Large White x Middle White	6	18	166	210	166	20.9
1160	T. Leonard Ward	1	Large Black x Large White	6	16	161	215	161	25.1
1161	H. Neaverson	2	Large White x Wessex ...	6	11	152	394	304	22.8
1162	Herts. Inst. of Agriculture	2	Large White x Essex ...	6	19	147	385	294	23.6
1163	T. Wyndham Vint	1	Large White x Large Black	6	19	142	184	142	22.8
1164	G. E. Chester-Master ...	2	Large White x Dorset Gold Tip	6	3	154	403	308	23.5
1166	E. A. Warth...	1	Large White x Large Black	6	10	151	194	151	22.1
1167	H. N. Brooking	2	Large White x Nat. Long W. Lop Ear	6	16	157	400	314	21.5
1168	Dartington Hall, Ltd. ...	1	Large White x Nat. Long W. Lop Ear	6	16	145	186	145	22.0
1169	H. R. Davidson	2	Tamworth x Large White	6	5	154	395	308	22.0
1170	E. Harding	1	Large White x Wessex ...	6	18	157	200	157	21.5
1171	A. E. Law	2	Large White x Middle White	6	18	162.5	406	325	19.9
1172	T. Leonard Ward	1	Large White x Large Black	6	16	170	215	170	20.9
	CLASS 91.—Two hogs and two gilts—recorded.								
1173	The Earl of Radnor ...	1	Large White	6	0	140	185	140	24.3
1174	H. R. Davidson	3	Large White	5	2	151.33	591	454	23.1
1175	T. Leonard Ward	4	Large White x Large Black	6	9	153	817	632	22.6

CLASSES, DAIRY SHOW, 1935.

														F'cundity					
Bacon Weight.	Percentage Loss Live Weight to Bacon Weight.	Thinness of Back Fat.	Thickness of Streak.	Length for Weight.	Proportion of Cuts.	Reduction of Fat from Shoulder to Gammon.	Proportion of Lean to Fat on Cut Side.	Shape of Gammon.	Quality (Firmness) of Fat.	Fineness of Bone.	Thinness of Rind.	*Deduct* for "Seedy-cut" up to 10 points.	Total.	Numbers weaned.	Average weight at 8 weeks.	Age for weight.	Carcass Quality.	Total.	Award.
lbs.	lbs.	15 Pts.	10 Pts.	10 Pts.	10 Pts.	5 Pts.	20 Pts.	5 Pts.	15 Pts.	5 Pts.	5 Pts.	10 Pts.	Pts.	50 Pts.	50 Pts.	100 Pts.	100 Pts.	300 Pts.	
434	43.9	13	9	10	9	5	15	4	13	5	5	—	88	—	—	—	—	—	3rd
107	45.4	13	9	10	8	4	18	5	15	4	4	30	60	—	—	—	—	—	
429	45.0	15	8	10	9	5	17	4	13	5	4	—	90	—	—	—	—	—	2nd
465	42.4	15	9	9	10	5	18	5	12	4	4	—	91	—	—	—	—	—	*1st
330	43.3	15	9	10	9	5	18	5	12	5	4	10	82	—	—	—	—	—	
456	42.4	14	9	9	8	3	15	4	14	4	4	—	84	—	—	—	—	—	
465	41.0	15	9	8	8	5	14	5	14	4	4	—	86	—	—	—	—	—	
216	44.0	15	10	10	7	5	16	4	13	5	4	20	69	—	—	—	—	—	
218	43.6	15	10	10	9	5	15	4	14	5	4	—	91	—	—	—	—	—	†1st
235	45.3	15	6	9	10	5	16	5	14	4	4	—	88	—	—	—	—	—	
233	41.1	15	10	10	8	3	14	5	15	5	4	—	89	—	—	—	—	—	3rd
226	43.2	15	9	8	8	4	13	5	13	4	4	—	83	—	—	—	—	—	
211	44.1	15	5	10	9	5	14	4	15	5	4	—	86	—	—	—	—	—	
107	43.6	15	10	10	10	4	16	4	15	4	4	10	82	—	—	—	—	—	
103	41.1	14	10	6	8	5	17	4	14	4	5	10	77	—	—	—	—	—	
114	40.0	15	10	8	7	5	18	4	14	3	4	10	78	—	—	—	—	—	
112	42.8	13	10	6	8	3	16	4	14	4	4	10	72	—	—	—	—	—	
223	42.3	15	10	10	10	4	14	4	14	5	4	—	90	—	—	—	—	—	2nd
239	40.3	14	10	10	9	4	11	5	15	5	5	—	88	—	—	—	—	—	
238	41.0	14	10	10	8	4	12	5	15	4	4	—	86	—	—	—	—	—	
106	45.0	14	8	9	9	5	14	4	15	5	5	10	78	—	—	—	—	—	
221	42.8	11	10	10	9	4	14	3	14	5	4	—	84	—	—	—	—	—	
254	30.0	14	10	7	7	4	12	4	14	3	4	—	79	—	—	—	—	—	
121	42.3	15	10	10	8	5	14	4	12	4	4	10	76	—	—	—	—	—	
120	44.1	15	9	6	8	3	16	5	15	4	4	10	75	—	—	—	—	—	
222	43.6	15	10	9	7	3	16	4	14	4	4	—	86	—	—	—	—	—	
211	45.1	14	10	10	9	5	15	4	14	4	4	—	89	—	—	—	—	—	‡1st
104	43.4	11	10	8	8	3	15	3	15	4	4	10	71	—	—	—	—	—	
233	42.1	15	10	7	8	3	13	4	15	4	4	—	83	—	—	—	—	—	
113	41.7	15	10	4	7	2	12	3	14	4	4	10	65	—	—	—	—	—	
229	42.7	15	10	8	9	3	14	3	14	4	4	—	84	—	—	—	—	—	
108	41.9	12	10	7	8	2	15	3	14	4	4	10	69	—	—	—	—	—	
226	42.7	14	10	9	9	3	16	4	14	4	4	—	87	—	—	—	—	—	3rd
116	42.0	14	10	7	8	3	13	4	13	4	4	10	70	—	—	—	—	—	
237	41.6	15	10	8	8	5	16	4	14	4	4	—	88	—	—	—	—	—	2nd
129	40.0	15	10	3	9	2	14	4	14	3	4	10	68	—	—	—	—	—	
101	45.4	12	7	10	9	5	15	3	15	4	4	30	44	30	31	80	44	185	
339	42.6	13	9	9	8	3	14	4	15	4	4	10	73	45	44	100	73	262	§1st
463	43.3	15	10	8	9	4	15	4	14	4	4	—	87	40	50	75	87	252	1st

*Whitley Cup and Harris Cup. †Beale Cup. ‡Bledisloe Cup. §Pig Recording Cup.

BOTTLED FRUITS, VEGETABLES AND JAMS.

This section was not up to the usual standard, probably owing to the general shortage of fruit. In the vegetable classes the standard was high, packing attractive and colour good. The exhibits in the class open to Women's Institutes was uniformly good. The first four exhibits varied very little on points.

HONEY AND WAX.

Honey was a good entry of very high standards. A few lots in the Extracted Classes had been spoilt by overheating.

JUNKET MAKING.

The Junket Making Contests are very popular, many excellent and capable makers taking part, and finding the winner is not an easy task.

The Championship was very keenly contested, and was won by Miss J. M. Bickley of Sidmouth.

BUTTER MAKING CONTESTS.

The competitors in the Butter Making Competitions numbered 167, an increase of twenty-one over 1934. The work in the novice class was rather disappointing, grains being only fair and much of the butter overworked. Competition in the open class was keen, work, grain and blocking good. Many competitors took more than the allotted time and lost marks.

As might be expected, the work of the twenty-three competitors in the Championship Contest reached a very high standard. With two exceptions the grain in churn and on worker was practically perfect. The most general fault was the overworking of the butter and, thereby, sacrificing the texture. The Championship was secured by Miss G. D. Matthews, Ross-on-Wye, who was runner up last year.

MILKERS' CONTESTS.

The Milkers' Contests were well supported. The general skill was of a high standard. Some competitors did not sit up to their cows thereby imposing a strain on their grip, but these were in the minority. A few competitors milked the hind quarters first ; in the opinion of the Judges, that practice should not be encouraged.

The Championship award was taken by the winner of the class for boys and girls under 18 years of age : Miss M. Williams, a student at the Llysfasi Farm Institute.

Cow Judging Contest.

Eight teams of Students from Agricultural Colleges, Farm Institutes and County Council Classes were Judged on Friday and the British Dairy Farmers' Association's Challenge Cup was won by a team from the Buckinghamshire County Council. The Association's Silver Medals were awarded to Miss P. Busby, Tom Busby and Arthur W. Cully, who were the competitors in the successful team. Cornwall County Council (Mid Cornwall) and Studley College tied for second place and the Association's Bronze Medals were presented to the following competitors of these teams :—G. Eustice, A. H. R. Lilly and F. Pollard (Cornwall) ; Miss C. Brent-Good, Miss Mary Hatch and Miss Helen Brown (Studley).

The competitions arranged by the National Federation of Young Farmers' Clubs for the Challenge Cup presented by *The Farmer and Stockbreeder*, attracted teams from twenty-two counties. Judging was carried on during Tuesday, Wednesday and Thursday. Durham Young Farmers' Club provided the winning team, to whom the Cup was presented by the President of the Association, Lord Rowallan.

The Young Farmers' Poultry Judging Competition, held on Friday, attracted much interest, some of the competitors being quite young. The Surrey team was awarded the Challenge Cup, presented by Bernard E. G. Bailey, Esq.

The Medals presented by the Association to the three highest individual scorers were secured by A. Munlay, 13 years old, a member of the Sevenoaks Weald, Kent team, Silver Medal ; Enid Carn, 13 years old, of the Surrey team, Bronze Medal, and W. G. Weller, 19 years of age, also of the Surrey team, Bronze Medal.

The presentation of the "Lonsdale" Perpetual Challenge Trophy took place on Thursday afternoon, the President, Lord Rowallan handing the Trophy to Mr. W. Cole, Manor Dairy, Closworth, Yeovil, whose exhibit of Cheddar Cheese (2 Cheeses not less than 40 lbs. each) was selected as the best from England, Scotland or Wales.

The President also presented the Association's Supreme Individual Championship Challenge Trophy to Mr. David Smith, won by his Ayrshire cow "Thornhill Mermaid 2nd."

The "Desborough" Perpetual Challenge Cup was presented by Mr. G. Titus Barham to the Champion Butter maker, Miss G. D. Matthews of Ross-on-Wye.

Mr. Barham also presented the *Daily Mail* Challenge Bowl to Miss J. M. Bickley of Sidmouth, who had been adjudged the

Champion Junket Maker and the "H. G. Howard" Gold Cup to the winner of the Champion Milking Contest, Miss M. Williams, Llysfasi Farm Institute, Ruthin.

The Concert given by the "Roosters Concert Party" on Thursday evening was greatly appreciated and well attended by the men in charge of cattle, as well as by Stewards who were on duty at the Show.

The thanks of the Council are due to Messrs. L. G. Hawkins & Co. for the loan of their electric washer and drier, that dealt in a very efficient manner with the cloths and towels in daily use by those in charge of stock. Also to Messrs. Frigidaire Limited for the Milk-cooling plant that the milk passed over.

The interest of the public was maintained throughout the Show, the attendance being in excess of any former year, thus creating a new record.

New and Improved Inventions, Dairy Show 1935

DAIRY APPLIANCES.

By J. G. Stapleton.

PRIZES.—A GOLD MEDAL is offered for the best New Invention considered by the Judges to be of sufficient merit. The Judges are empowered to award a SILVER or BRONZE MEDAL to any exhibit showing sufficient merit. The Judges may call upon the Exhibitor to make a practical test in their presence.

PREFACE.

In reporting on the Invention Classes for the Dairy Show, 1935, I desire to record how much I grieve and deplore the death of my old friend and colleague in this work, Mr. William Burkitt, who succeeded the late Dr. R. Stenhouse Williams as one of the judges of these classes, with both of whom I had the privilege of working in this connection.

Agriculture and Dairying in particular, has indeed suffered a great loss in the death of Mr. Burkitt.

The New Invention Section for the Dairy Show of 1935 was particularly interesting. The special feature of the year was a class for " Sterilizing Equipment," by reason of the introduction by the Milk Marketing Board of the bonus of 1d. per gallon payable to producers of " Accredited Milk."

In connection with this class the temperature requirements have never been clearly defined by those who have authority to do so, and therefore the judges acting without direction in this matter had to accept the principle adopted by all exhibitors that a maximum temperature of 212° F. is sufficient, associated of course with a sufficient time interval at such a temperature, but there are some responsible authorities who consider that a considerably higher temperature should be enforced.

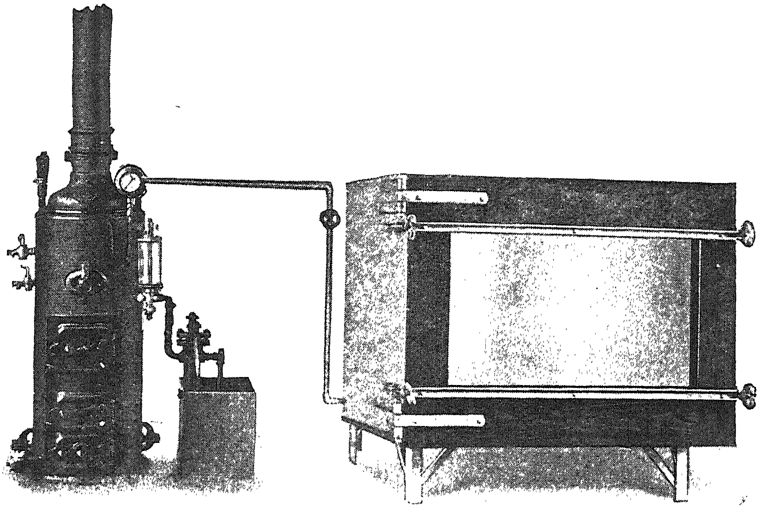
With the advent of the Accredited Milk Producers' Scheme and the realisation that some form of sterilising equipment has become a necessity on the farm, large numbers of farmers are faced with the problem of making a choice between the numerous types and sizes of apparatus now being put on the market. The mere installation of a sterilising plant may result in a false sense of security and a farmer may find his apparatus is, under his available working conditions, incapable of doing the work he requires. The main purpose of this note is to draw attention to the fact that at the B.D.F.A. Show, the sterilising plants submitted for competition aroused great interest.

In all, eleven outfits were submitted, four from one firm, three from another firm, and four individual entries; therefore the number of manufacturers represented by the entries totalled six. Of the types of plant, nine were coal fired and two oil-fired. With the exception of three outfits, all entries are capable of effecting efficient sterilisation as regards temperature, and taking type for type there is no great difference in operating costs or evaporation efficiency, except in the case of the oil fired outfits.

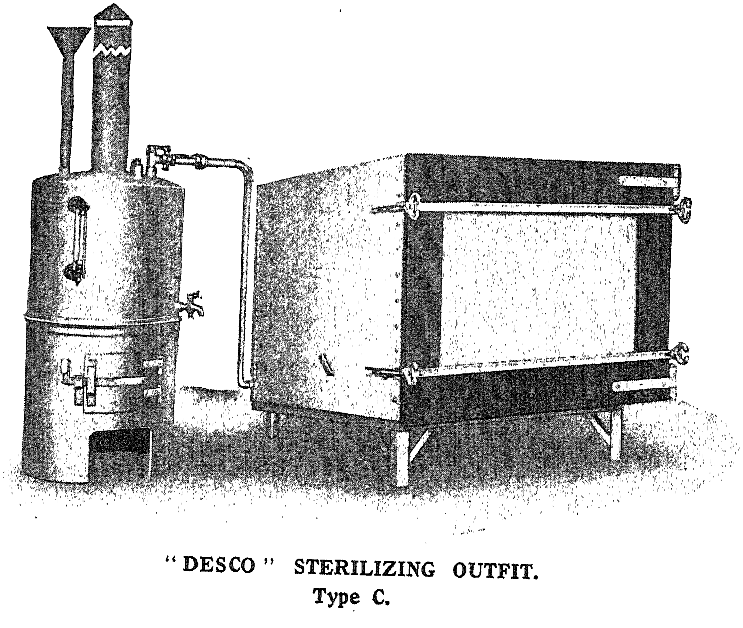
Therefore, for purposes of assessing the various plants for award, a comparison (over a narrow field) of costs and construction constituted the most important points to be considered.

The oil fired oufit, Scaldwell—although showing an excellent performance—should be considered as more or less experimental and subject to development.

The efficiency of the sterilising equipment could not be tested at the Dairy Show under normal working conditions, and therefore the judges had to rely upon the experimental work and reports submitted to them by the National Institute for Research in Dairying, and guided by the reports and figures submitted, the judges awarded the First Prize (£3 and Silver Medal) to the Dairy Supply Co., Ltd., for their Type "D" Desco Sterilizing Outfit—price £40, and also the Second Prize (£2 and Bronze Medal) to the Dairy Supply Co., Ltd., for their Type "C" Desco Sterilizing Outfit—price £25 10s. 0d.



"DESCO" STERILIZING OUTFIT.
Type D.



"DESCO" STERILIZING OUTFIT.
Type C.

The Gold Medal of the Association was awarded to the U.D. Engineering Co., Ltd., for their Udec Hydraulically Operated Bottle Filler and Aluminium Capper.

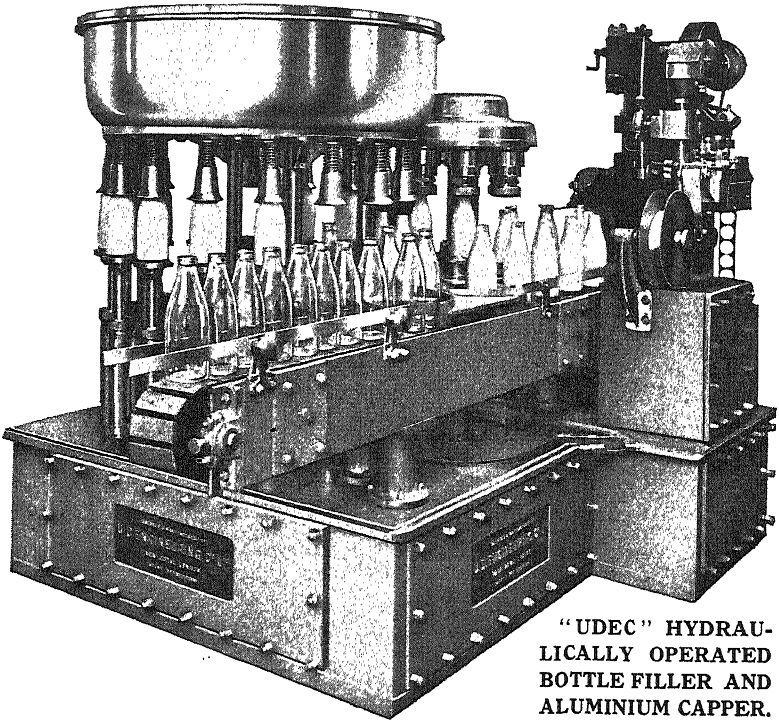
The hydraulic system employed gives the following advantages :—

1. No adjustment is required for different size bottles. The total travel of the pedestal is such that 1/5th pints can be filled irrespective of the type of bottle. The pressure exerted is controlled by a suitable relief valve fitted to the plunger barrels and is constant on all size bottles.

2. The hydraulically operated capping-head operates in such a way that no downward thrust is exerted on the bottles.

3. The method of feeding the capping foil is to push the foil instead of pulling as hitherto practised. This feature allows of a thinner gauge foil to be used with the subsequent economy.

4. The synchronising device between the filler and capper, controls the cap-making press in such a way that if no bottles are coming from the filler no cap is made. Should a pedestal fail to return for some reason the machine is automatically stopped.

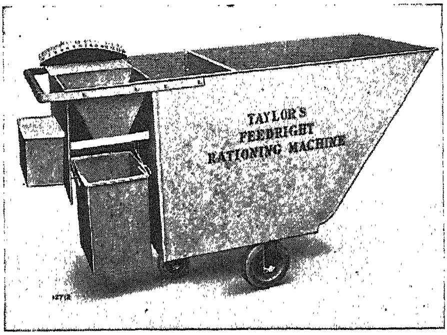


"UDEC" HYDRAULICALLY OPERATED BOTTLE FILLER AND ALUMINIUM CAPPER.

After three years of experimental work by the U.D. Engineering Co., Ltd., they have now placed on the market a machine of outstanding merit, and the only comment the judges had to make was, that over an extended period in actual operation, owing to the very delicate adjustments required to provide continuous and satisfactory results, it might prove that this type of machine would require a highly skilled and experienced engineer's fitter to be always available.

The Taylor's " Feedright " Weighing and Rationing Machine provided a simple method for weighing rations of concentrates for dairy herds, and a machine was examined under working conditions.

The machine appeared to be wearing well and the levels of the various compartments made it capable of speedy rationing. The protection afforded to the more delicate weighing mechanism, the compactness of the machine in general and the position of the wheels enabled the machine to be moved easily through relatively restricted spaces without difficulty or damage.



"TAYLORS" FEEDRIGHT WEIGHING AND RATIONING MACHINE

The arrangement for holding a rationing sheet appeared sensible and useful and the dial of the scales was easily visible. Accuracy of the scales was roughly checked against farm weighing scales. The zero adjustment did not appear to have been checked recently and was slightly incorrect. This could be easily overcome, although the adjustable arm looked capable of refinement for ease of movement and avoidance of accidental displacement.

The forked support which holds the food pail in position had become slightly bent and the friction affected the accuracy of weighing. When the bent arm was returned to its original shape this trouble was overcome.

Ths chief advantage of the machine was a more crudely constructed home-made arrangement, fitted with suspended scales, which afforded convenience in movement, easy reference to the rationing sheet, and speed in weighing the rations.

The exhibit by the Dairy Outfit Co., Ltd., of the Westfalia No-Foam Cream Separator—to which was awarded a Silver Medal—was of considerable interest and showed an advance in design of machines of this type.

The four chief claims for this machine are as follows :—

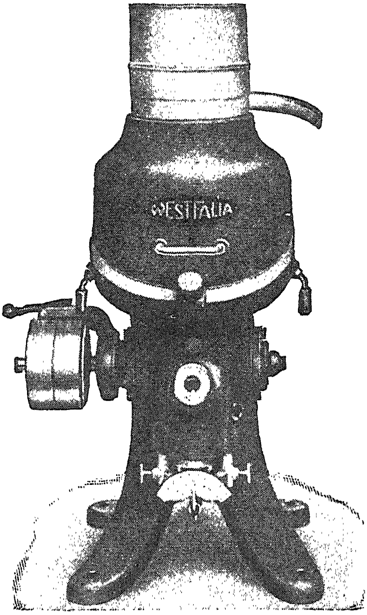
(*a*) Elimination of foam on the skim milk.

(*b*) Pressure delivery of the skim milk.

(*c*) Gravity feed of whole milk to the machine.

(*d*) Control of cream percentage while running.

Claims (*a*), (*b*) and (*c*) are effected by means of a specially designed and constructed separator bowl. In the process of skimming, the skim milk is forced under pressure by centrifugal means to the centre of the bowl and discharged in a downward direction through the hollow spindle of the bowl. By this means air (the cause of foam) is eliminated ; delivery pressure is effected, and, as the source of delivery pressure is within the separator bowl gravity feed can be employed. Control of the cream percentage while the machine is running is effected by a simple throttle device situated in the skim milk delivery line and apparently adjusts the cream percentage by influencing the milk pressure within the separator bowl. The machine was inspected under working conditions and appeared quite satisfactory. The construction and finish of the machine is excellent and the cleaning and dismantling presented no difficulties. As far as could be ascertained all claims seemed to be substantiated.



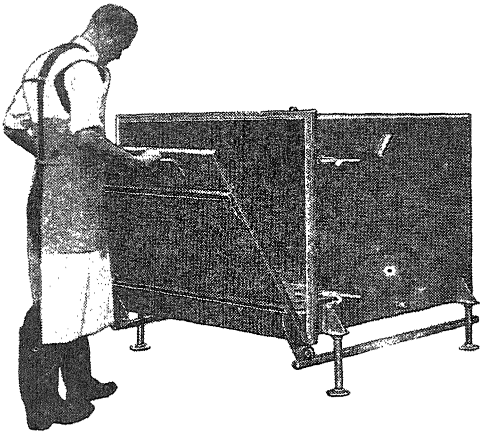
"WESTFALIA" NO-FOAM CREAM SEPARATOR.

The exhibit of the Wessex Supplies, Ltd., of their "Wessex" Super Sterilising Chest had no outstanding features either in design or as provided for, in its operation.

The features of this entry are :—

- (*a*) The door can be easily tucked away under the chest—an excellent feature where space is limited.
- (*b*) Adjustable door clamps of simple design.
- (*c*) Steam trap and safety valve allowing slight pressure during the steaming period.
- (*d*) All metal rack.
- (*e*) Easily renewable generous fibre insert door seal.

Taken collectively these features constitute an improvement on current designs, but on the other hand they do not influence the steaming process to any appreciable effect.



"WESSEX" STERILIZING CHEST.

The entry by Gascoignes (Reading), Ltd. of a new type of Milk Cooler was examined very thoroughly by the judges, but in the absence of any extended test under working conditions on a farm, the judges were not in a position to form any definite opinion that would justify their recording an opinion either for or against.

This invention consists of a milk cooler for cooling milk on the farm. It is claimed by the entrants that this unit has the following advantages over the existing types of milk coolers :—

(*a*) It is much easier to clean and is more hygienic than corrugated types.

(*b*) It requires much less head room on installation and therefore facilitates milk tipping.

No information has been given concerning the cooling capacity. The cooler was installed at the National Institute for Research in Dairying. Three tests, using milk, were made of the cooling capacity, and its general utility. The results are given below Claims (*a*) and (*b*) appear to be fully substantiated.

COOLING CAPACITY.

MILK.				COOLING WATER.			
Air Temp. °F.	Initial Temp. °F.	Final Temp. °F.	Rate of Flow, G.P.H.	Temp. in °F	Temp. out °F.	Rate of Flow.	Ratio of flow of milk.
62° F.	90	65	50	60	68	153	3.06—1
62° F.	89	63	50	60	65.5	250	5—1
62° F.	90	63	40	60	68	154	3.8—1

It is considered that an efficient milk cooler should cool milk to within 3-5° F. of the cooling water when using a 3 to 1 ratio of water to milk flow. The above results indicate that this cooler is efficient when cooling at the rate of 45 to 50 gallons of milk per hour. It is the custom in the trade to rate the cooling capacity of a cooler on a reputed basis, that is, the actual capacity is below that stated. The capacity of this cooler may be regarded as 45-50 gallons per hour actual.

The exhibit by Messrs. R. A. Lister & Co., Ltd., of their Ball-bearing Cream Separator had some new features, but these in the opinion of the judges did not justify any special reference.

The machine employs the orthodox mechanism for the separating of milk. As a new invention the chief claims of the entrants are as follows :—

(*a*) Stainless steel construction of separator bowls, bowl plates, and distributor.

(*b*) Interchangeability of the conical plates.

(*c*) Highest skimming efficiency.

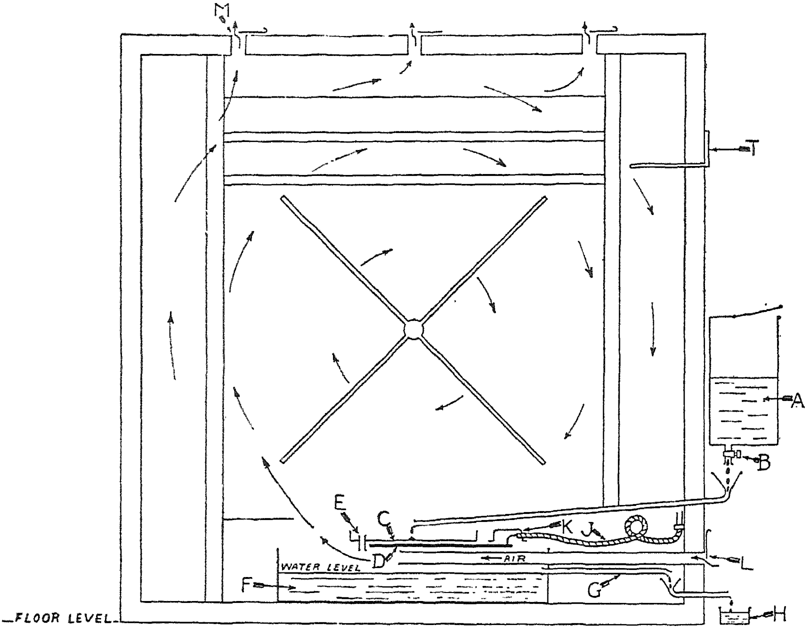
By inspection claims (*a*) and (*b*) appear to be fully met and they constitute an advance in separator design. Claim (*c*) requires a comprehensive test before acceptance. The machine was observed working over a period of two hours and appeared quite satisfactory. The assembled unit is well finished and soundly constructed.

POULTRY APPLIANCES.

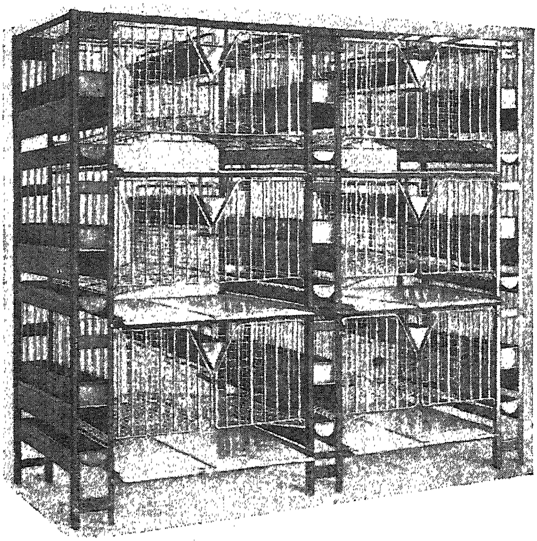
By C. N. Goode.

This section showed an increased entry of an interesting character on that of the previous year. The present system of Poultry keeping needs special types of appliances not dreamed of a few years ago. Mammoth Incubators each year show some special improvement that tends to make them easier to work and more reliable for the production of good hatches. A Bronze Medal was awarded to Papworth Industries for a new method of air circulation in their Cabinet Incubator, whereby vitiated air cannot be recirculated. A new method of humidity control was also a good feature of this machine.

A Silver Medal was awarded to Messrs. Swift & Sons for a 24-cage Single Hen Laying Battery, which the judges considered



NEW METHOD OF AIR CIRCULATION IN A CABINET INCUBATOR.

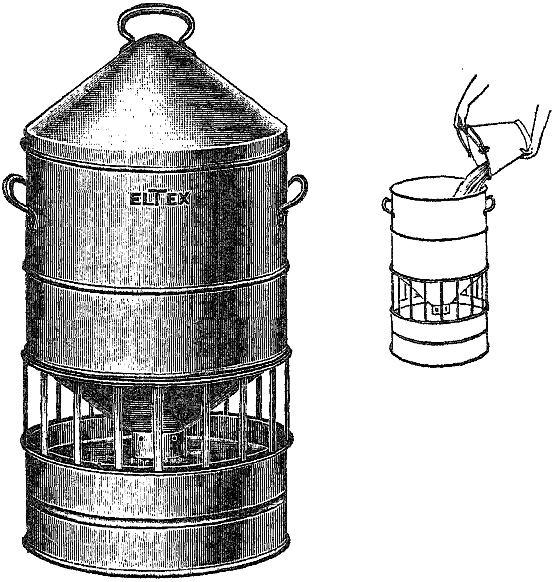


24-CAGE SINGLE HEN LAYING BATTERY.

the best that had so far been put on the market. It was well constructed and had been well thought out, so as to insure the best results with a minimum of labour. Laying Batteries is one of the latest methods in dealing with hens for egg production.

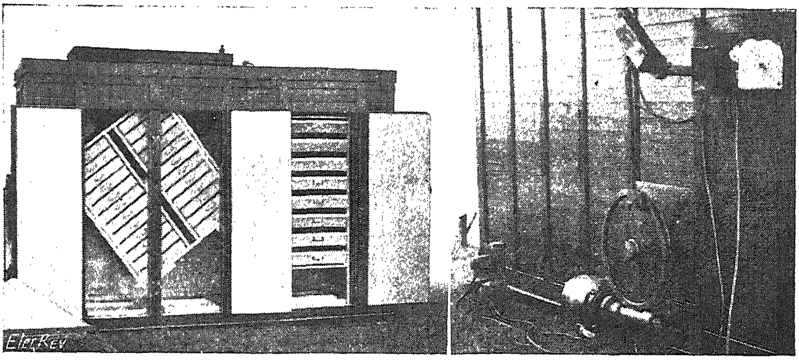
This firm also exhibited a useful "C-All" Pyramid Chick Hover to which we gave a V.H.C. award.

A Bronze Medal was awarded to G. H. Elt for an Automatic Water Fount for poultry. This is a very useful appliance, effective in use and easy to keep clean, and can be heated during frost.



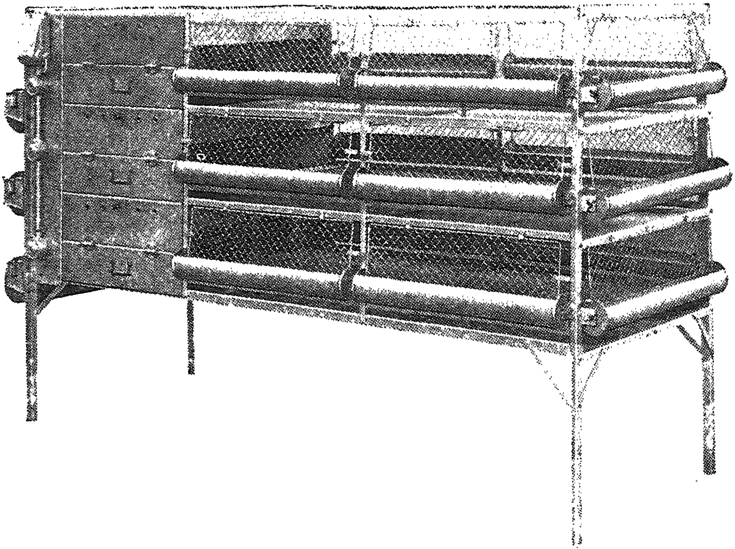
AUTOMATIC WATER FOUNT FOR POULTRY.

The Curfew Electric Heaters exhibited an Automatic Cabinet Incubator, which is in every way automatic, even to the turning of the eggs ; when once going it is automatic in action. Fresh air is drawn in at the bottom and expelled at the top thus providing a continuous supply. The water trays are kept automatically filled, ensuring good humidity. Alarms are so arranged that if anything goes wrong it is at once notified. The construction of the machine is good, being lined with galvanised steel to conserve moisture, and everything can be moved for cleaning purposes.



AUTOMATIC CABINET INCUBATOR.

Messrs. Spratt's Patenet, Ltd. exhibited an improved type of Hearson's all electric Cabinet Incubator; the improvements were an all teak front and new water trays for humidity distribution. This is an important point in incubation, especially at the time of hatching when increased humidity is necessary. There is also an improvement in the ventilation. This entry was given a V.H.C. award.



"HEARSON'S" ALL-ELECTRIC BATTERY BROODER.

This firm also exhibited an All Electric Battery Brooder, each compartment being self contained with heating thermostatically controlled. Patent feeding and water troughs are fitted, sanitary paper rolls are fixed to collect droppings—a good labour saving device.

This entry was awarded a Bronze Medal.

Messrs. Cope & Cope exhibited an electric Egg Cleaning machine, which we tested and that found it did its work remarkably well. It was awarded V.H.C. We also awarded their Summit Sykes Hen Laying Battery H.C.

Gloucester Incubators, Ltd., exhibited a very useful portable heating apparatus, suitable and safer for heating a small house for chickens. It requires less than one quart of oil for 24 hours and was awarded V.H.C.

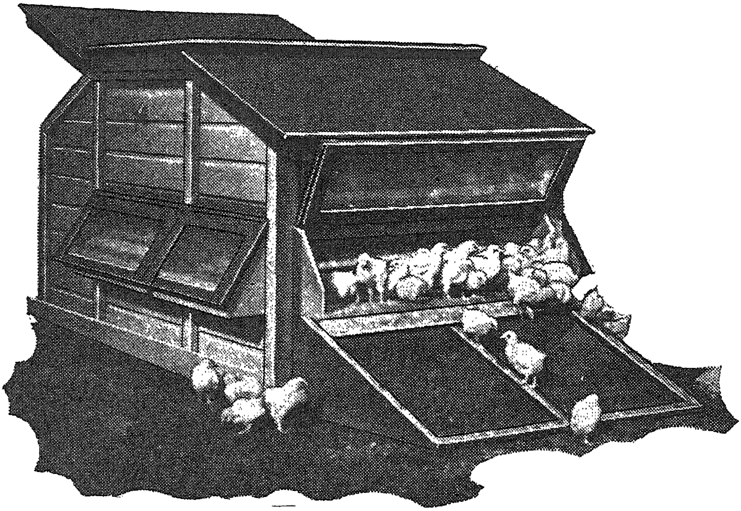
H.C. was awarded to Messrs. Gabriel Wade & English for their sectional Hen Laying Battery, with a cleaning device consisting of an endless canvas belt having an adjustable scraper and a winding handle at one end—a good labour saver.

Messrs. F. A. Young & Son of Horley exhibited a Petersime Hatchibator which they claim is two Incubators in one. The hatching compartment may be used as a complete incubator at the start and close of hatching season.

It is so fitted that heat, air and moisture is diffused equally to every egg, cabinet walls are insulated, air sealed and lined with aluminium. This is a large machine with capacity of 20,000 eggs and was awarded V.H.C.

A Bronze Medal was awarded to Messrs. D. McMaster & Coy, for the Sawyer Outdoor Brooder. This is a very useful type of brooder for the general farmer, or those who prefer to rear their chickens in the open, and it has been well reported on by those who have used it. The brooder is well constructed, the feeding can be done from outside, every provision is made for the comfort of the chicks and there is a constant supply of fresh air. These are important points that make for the rearing of sturdy Chicks.

The Ellis Brooder Co. exhibited a new type of "Ellispen" laying pen for single birds; every provision is made to make life happy for the hen, even an arrangement so that it can mix its own wet mash. This entry was awarded V.H.C.



" SAWYER " PATENT OUTDOOR BROODER.

The Secura Incubator Co., Ltd., exhibited an improvement, they have made in the manufacture of this machine by using bronze Apollo steel panels in place of wood. It is claimed that this material is not influenced by heat and humidity as wood is liable to warp and split. We gave it a V.H.C. award. This firm was also awarded H.C. for an ingenious Mercury alarm; if the temperature rises or falls a bell immediately gives warning.

THE MILKING TRIALS AT THE DAIRY SHOW 1935

By T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.I.R.I., F.C.S.

The Milking Trials at the 1935 Dairy Show aroused the keenest interest and huge crowds of spectators watched the inspection judging of the cows for the Supreme Individual Championship Trophy and the teams, each of six cows, for the Bledisloe Trophy.

In many cases, as will be seen from the figures given in the following report and also from the Tables of results, the competition was extraordinarily keen and often only a fraction of a point separated some of the prize winners.

The Method of Awarding the Points followed the established practice of many years which is :—

One point for every 10 days since calving, deducting the first 40 days and with a maximum of 12 points.
One point for every pound of milk, taking the average yield of the two successive days.
Twenty points for every pound of fat produced.
Four points for every pound of non-fatty solids.

Deductions are made of 10 points for each time the fat is below 3.0 per cent. and of 10 points for each time the content of non-fatty solids falls below 8.5 per cent.

Disqualification takes place in the case of any animal whose milk for any one milking falls below 3 per cent. of fat and for the same milking also falls below 8.5 per cent. of solids other than fat. Such disqualification renders the animal ineligible for any award or trophy in any section of the Show.

Number of Entries.—The number of entries was almost the same as last year and numbered 390 against 393 in 1934.

Number of Competitors.—The number of animals competing in the Trials was 247 as compared with 251 in 1934.

Number of Breeds Represented.—The classification in 1935 provided for twelve distinct breeds, and all except two, the Kerry and Blue Albion Breeds were represented at the Show. No provision was made in 1935 for the Blue Albion Breed, which had not been represented at the Show for several years.

Highest points gained in the Milking Trials.—Last year it was suggested that the maximum total points to be expected annually would exceed 200, but this year the highest points totalled 181.52 obtained by Mr. J. H. Brown's British Friesian Cow " Marshgreen Kathleen " (No. 115).

Highest Yield of Milk.—The highest yield of milk, 87.90 lbs., was also giving by Mr. J. H. Brown's British Friesian Cow " Marshgreen Kathleen " (No. 115). The record of 102.65 lbs. was made at the 1929 Show.

Disqualifications.—The number of animals disqualified from all competitions at the Show for 1935, owing to milk failing to attain the presumptive minimum standards of 3.0 per cent of fat and 8.5 per cent. of non-fatty solids, was five. Three were British Friesian and two Red Poll Animals.

At the last Show (1934) only two animals were disqualified.

The points gained by the disqualified animals have been included in the calculations of the averages for their respective classes in Tables I., II., III., V., VI.

Standard Points.—The Standard Points for each Class will be found at the head of Table III., and it may be noted that these points are substantially the same as those in operation when the cows were milked twice daily.

It would therefore seem desirable to suggest to the Council of the British Dairy Farmers' Association that with eight years' experience of cows being milked thrice daily, consideration might be given to a revision of these points.

For instance, it appears difficult to justify a standard of 100 points for the Pedigree Dairy Shorthorn Cow and 110 points for the Non-Pedigree Dairy Shorthorn Cow. The performances of the two classes in question do not justify the difference.

There is one other matter to which, as a Judge, the writer would like to draw attention. It states in the regulations that " Certificates of Merit and highly commended cards will be given to all animals other than prize winners " securing points above the class standards. This completely ties the hands of the Judges and they are compelled, for instance, to award a Certificate of Merit and Highly Commended Card to an animal (such as No. 29 or No. 136), which gives milk at all three milkings deficient in fat. Similarly, if an animal gives milk at all three milkings deficient in non-fatty solids it is still eligible for an award. In fact at this Show, an animal (No. 134) yielding milk always deficient in non-fatty solids was awarded second prize in her class.

The Judge is here expressing his own opinions but thinks it rather incongruous in Milking Trials at a Dairy Show to commend an animal whose milk is consistently, in one respect, poorer than the presumptive minimum standard.

It may be contended that deductions on this account are made, but the matter might receive the consideration of the Council of the British Dairy Farmers' Association, whose main object is to foster the improvement of Dairy Stock and Dairy Produce.

Burroughs Adding Machines.—The Milking Trial Judges are once again deeply indebted to Messrs. Burroughs Adding Machines Ltd., for the loan of two electric calculating machines and for arranging for two highly skilled operators to attend the Show to undertake the necessary calculations.

Despite the increased work, it is conducted in such an expeditious manner that the Milking Trial results are available on Tuesday almost as soon as the Show opens, although the final weighing of the milk is not completed until about 11 o'clock on the Monday night.

NOTES ON CLASSES 1 TO 31.

Class 1. *Pedigree Dairy Shorthorn Cow over* 5 *years old.*—Entries 20; present 9. The best animal in this class was "Steppingley Clover's Gift 4th" (No. 17) owned by Messrs. A. Brittain and Son, which obtained 171.36 points and it was followed closely by Mr. E. H. Birley's "Harescombe Margaret" (No. 7) with 170.92 points. The third prize was awarded to Mr. R. Tustian's cow "Greattew Daphne" (No. 20) with 158.93 points.

"Harescombe Margaret" (No. 7) was reserve in the competition for the B.D.F.A. Supreme Individual Championship Trophy.

Class 2. *Pedigree Dairy Shorthorn Cow over* 3 *and under* 5 *years old.*—Entries 30; present 23. The entries in this class were larger than in the former year and the number of animals present in the show yard exceeded those present last year by 6. This fine entry entitled the class to additional fourth and fifth prizes. The first prize was won by "Revels Graceful Lady" (No. 49) with 157.74 points and was exhibited by Mr. W. H. Vigus; the second prize was secured by "St. Clere Ruby 6th" (No. 27) with 142.76 points exhibited by the St. Clere Estates, Ltd. It may be noted that this latter animal obtained first prize last year in the heifer class. The third prize was awarded to Mr. R. Tustian's "Greattew Foggathorpe 3rd" (No. 45) with 136.08 points, the fourth prize to Capt. Arnold S. Wills' "Thornby Foggathorpe 43rd" (No. 24) and the fifth prize to Mr. R. Tustian's "Greattew Lady Jane" (No. 44).

The Desborough Cup is awarded to the Dairy Shorthorn Cow exhibited in Classes 1 and 2 gaining the highest points in the Milking Trials. The Cup was awarded this year to "Steppingley Clover's Gift 4th" (No. 17) exhibited by Messrs. A. Brittain and Son, and the reserve was Mr. E. H. Birley's "Harescombe Margaret" (No. 7).

Two Extra Prizes of £5 each are offered jointly by the Shorthorn Society and the Dairy Shorthorn Association for the two cows exhibited in Class 2 gaining most points on Inspection and in the Milking Trials. A first prize in either milking trials or inspection counts ten points; second, eight points; third, six points; fourth, four points; fifth, three points; sixth, two points, seventh one point. The two winning animals were Mr. John Crowe's "Fair Foggathorpe" (No. 35) and Mr. W. H. Vigus' "Revels Graceful Lady" (No. 49) with Mr. C. J. Allday's "Fothering Foggathorpe 2nd" (No. 33) as reserve.

Class 3. *Pedigree Dairy Shorthorn Heifer.*—Entries 14; present 9. Last year and the year before this class was the largest in the Show and no less than 22 animals were present, but this year there was a surprisingly small entry and a correspondingly small number of animals present. The first prize was won by Sir Martin J. Melvin's "Copsale Wild Eyes 17th" (No. 60) with 107.28 points. The second animal was "Revels Barrington Beaty" (No. 64) with 106.26 points exhibited by Mr. W. H. Vigus and the third prize went to Mr. R. Tustian's "Greattew Ruby Clare" (No. 62) with 90.79 points.

Two Extra Prizes of £5 each are offered by the Shorthorn Society and the Dairy Shorthorn Association for the two Heifers (in Class 3) gaining most points on Inspection and in the Milking Trials. The award of points is detailed above. The two winning heifers were Mr. R. Tustian's "Greattew Ruby Clare" (No. 62) and Mr. W. H. Vigus' "Revels Tulip 2nd" (No. 63) with Sir Martin J. Melvin's "Copsale Wild Eyes 17th" (No. 60) as reserve.

Class 4. *Non-Pedigree Dairy Shorthorn Cow.*—Entries 11; present 6. The first prize in this class was secured by "Cantab Janet 3rd" (No. 66) with 155.89 points and was exhibited by University Farms; the second was awarded to Messrs. Tudge and Maybery's "Whittingslow Onyx" (No. 70) with 136.39 points and the third to "St. Clere Colleen 2nd" (No. 69) with 129.84 points, owned by the St. Clere Estates, Ltd.

An Extra Prize of £10 is offered jointly by the Shorthorn Society and the Dairy Shorthorn Association for the cow exhibited in Class 4 gaining most points on Inspection and in the Milking Trials. The award of points has been detailed on page 128. The prize was won by " Cantab Janet 3rd " (No. 66) exhibited by University Farm with Mr. J. H. Robinson's " Garnet's Jewel " (No. 74) as reserve.

Class 5. *Non-Pedigree Dairy Shorthorn Heifer.*—Entries 9; present 9. In former years it was only on rare occasions that all the animals entered for competition at an earlier date actually appeared subsequently in the show-yard, but a reference to Table I. will show that this year in four classes (5, 7, 14, 30), all the animals entered were present in the actual competitions. The first prize went to " Cantab Janet 4th " with 113.61 points exhibited by University Farm. The second prize was awarded to Messrs. J. and H. Jackson's " Prudence " (No. 79) with 105.79 points and the third prize to Mr. H. Brazier's' " Pretty Lass " (No. 81) with 102.95 points.

Extra Prize of £25 is offered jointly by the Shorthorn Society and the Dairy Shorthorn Association for the Dairy Shorthorn Cow or Heifer, pedigree or non-pedigree (Classes 1 —5) gaining most points on Inspection, in the Milking Trials and Butter Tests, the points being calculated as for the " Spencer " Cup (see page 142). The prize was won by " Cantab Janet 3rd " (No. 66), exhibited by University Farm, with 237.64 points, and the reserve was Mr. C. J. Allday's " Fothering Moss Rose " (No. 13) with 234.74 points.

Class 6. *Lincolnshire Red Shorthorn Cow.*—Entries 14; present 11. The competition in this class was particularly keen, and the difference in the number of points secured by the first four animals was less than 2. The first prize was awarded to " Histon Duchess 20th " (No. 90) with 147.87 points, the second to " Histon Dairymaid 65th " (No. 87) with 147.31 points, both cows being exhibited by Messrs. Chivers & Sons, Ltd. The third prize was won by Mr. F. Sainsbury's " Burton Hempy 13th " (No. 91) with 145.99 points.

Class 7. *Lincolnshire Red Shorthorn Heifer.*—Entries 8; present 8. All the animals entered actually appeared in the Show-yard and a remarkably fine performance was put up by Mr. F. Sainsbury's " Wratting Cherry 3rd " (No. 101). This heifer obtained 126.23 points and thus easily broke the record which was set up as recently as last year by " Bendish Ada 15th " with 118.39 points. The second prize went to Messrs. John Evens and Son's " Burton Cynthia 5th " (No. 102) with 119.29 points and the third prize to Mr. F. Russell Wood's " Bendish Bess 18th " (No. 99) with 110.07 points.

Class 8. *British Friesian Cow over 5 years old.*—Entries 24; present 9. The number of cows present in this class was low and the performance which in the past two years had showed remarkable improvement was lower than expected. The average points gained by this class last year was 163.18 points, but this year the figure was only 151.35. One animal was disqualified for poor quality of milk, but all the others secured the class standard. The first prize was won by Mr. J. H. Brown's "Marshgreen Kathleen" (No. 115) with 181.52 points, the second prize by Mr. Cecil Ball's "Abingworth Dainty" (No. 114) with 176.51 points and the third by Mr. J. Martin's "Netherhall Jean" (No. 122) with 174.13 points. "Marshgreen Kathleen" (No. 115) was reserve for the Morrison Challenge Trophy, but won the Barham Challenge Cup and Shirley Cup. Mr. Cecil Ball's "Abingworth Dainty" (No. 114) was reserve for the Barham, the Spencer and Shirley Cups.

Class 9. *British Friesian Cow over* 3 *and under* 5 *years.*—Entries 16; present 9. From Table III. it will be observed that the average performance of this class fell considerably below that of last year although the figure for that year may have been an exceptionally high one. One animal was disqualified this year owing to the poor quality of the milk. The first prize was won by Mr. Cecil Ball's "Abingworth Hazel" (No. 133) with 165.28 points, the second prize by Mr. J. H. Brown's "Marshgreen Bessie" (No. 134) with 140.96 points, and the third by Lord Rayleigh's cow "Terling Lead 42nd" (No. 132) with 133.66 points.

Class 10. *British Friesian Heifer.*—Entries 20; present 9. The entries in this class were considerably greater than last year, but only a few more animals put in an appearance at the show. The performance of the class as a whole was not particularly good and did not attain the figures secured during the past four shows (see Table III.). One animal was disqualified owing to the poor quality of her milk, and the average fat percentage for the morning milks of all the cows in this class fell below 3 per cent. The first prize was obtained by Mr. Cecil Ball's "Oakham Dainty Gem" (No. 147) with 108.83 points, the second by Mr. J. Martin's "Netherhall Humbug 2nd" with 105.86 points and the third prize was awarded to Mr. F. J. Carter's "Chelmsford Lilac 3rd" (No. 150) with 103.35 points.

Class 11. *South Devon Cow over* 5 *years old.*—Entries 6; present 5. In view of the fact that one animal did not attain the class standard, the performance of the remaining four animals was particularly good, and as a result the average for the class (see Table III.) can be regarded as satisfactory. The first prize was won by "Cinderella" (No. 171), a cow exhibited by Dartington Hall, Ltd., which obtained 149.36 points. This animal only just beat the second prize winner, Mr. George Wills' "Milkmaid 3rd" (No. 172) with 149.01 points. The third prize went to Mr. J. Rossiter's "Graceful" (No. 168) with 129.53 points. This latter animal was first in this class at the last show. "Milkmaid 3rd" (No. 172) again won the Morrison Challenge Trophy for Mr. G. Wills.

Class 12. *South Devon Cow over* 3 *years and under* 5 *years old.*—Entries 6, present 5. The performance of the cows in this class was excellent and the average for the class (see Table III.) was the highest yet recorded. A further record was created in this class by the first prize winner, Mr. George Wills' "Milkmaid 5th" (No. 173) which obtained 162.15 points in the milking Trials. The previous record for this class was held by "Snowdrop 7th" (No. 168 in 1932 catalogue) with 158.75 points. The second prize went to Mr. J. T. Dennis's cow "Winsor Alma" (No. 176) with 147.25 points and the third prize to "Dartington Hall Nervous Alice 2nd" (No. 178) with 127.97 points.

A Silver Challenge Cup presented by the South Devon Herd Book Society is given to the owner of the cow gaining the greatest number of points on Inspection, (as ascertained under the Spencer Cup conditions, see page 142) in the Milking Trials and Butter Tests. The winner was "Milkmaid 5th" (No. 173) with 254.15 points and the reserve "Milkmaid 3rd" (No. 172) with 244.51 points. Both animals were exhibited by Mr. George Wills.

Class 13. *South Devon Heifer.*—Entries 7; present 3. One of the animals exhibited did not attain the class standard. The first prize was awarded to "Dartington Cowslip 1st" (No. 183) with 107.27 points and the second prize to Mr. George Wills' "Rydon Milkmaid 7th" (No. 184) with 104.45 points.

Class 14. *Devon Cow.*—Entries 4; present 4. Two of the animals exhibited failed to obtain the necessary number of points to attain the class standard; of the remaining two, Mr. H. G. Mayo's "Corton Comet" (No. 186) secured first prize with 133.82 points and the second prize went to Mr. G. E. Braddick's "Ruby 4th" (No. 189) with 127.39 points. This is the second year that "Corton Comet" has obtained the first prize in this class and the animal also holds the record for the Devon Cows (see page 144).

The Busk Challenge Cup is awarded to the owner of the Devon Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials, Butter Tests and for the milk record for the 12 months ending 1st October, 1935. Points for inspection are awarded to the first six animals in order of merit as follows: 100, 90, 80, 70, 65, 60 for Milk Record; 1/10th point for every 10 lbs. of milk up to 6,000 lbs and 1/10th point for every 5 lbs. of milk over 6,000 lbs. The winner was Mr. H. G. Mayo's "Corton Comet" (No. 186) with 430.57 points and the reserve, Mr. G. E. Braddick's "Ruby 4th" (No. 189) with 346.89 points.

Class 15. *Red Poll Cow over* 5 *years old.* Entries 22 ; present 17. The number of representatives of this class shows an increase over last year's figures, but three animals failed to obtain the class standard of 100 points and one was disqualified completely owing to the poor quality of the milk. The performance of the remaining animals was sufficiently satisfactory to maintain a reasonable average for the class (see Table III.). Five prizes were awarded in the class as follows: First prize to "Combwell Rosie (209) with 160.60 points exhibited by Mrs. H. D. Lewis, second prize to Mr. Stuart Paul's "Holton Rainbow" (No. 201) with 153.73 points, third prize to "Longford Bitter Sweet" (No. 190) with 149.73 points exhibited by the Earl of Radnor; fourth prize to "Eastwell Marshmallow" (No. 208) exhibited by Mrs. H. D. Lewis and the fifth prize to Mr. C. H. Cearn's "Weston Peggy" (No. 199).

The Thornton Cup is awarded to the owner of the Red Poll Cow or Heifer gaining the greatest number of points on Inspection (as for the Spencer Cup, see page 142), in the Milking Trials and the Butter Tests. The Cup was won by "Eastwell Marshmallow" (No. 208) exhibited by Mrs. H. D. Lewis with 232.52 points and the reserve was "Knepp Cowslip 14th" (No. 192) with 225.37 points, the latter cow was exhibited by Sir Merrik R. Burrell.

Class 16. *Red Poll Cow over* 3 *years and under* 5 *years old.*—Entries 16 ; present 9. Although one animal was disqualified owing to the poor quality of her milk and one failed to attain the class standard of 83.3 points, the remaining animals secured sufficient points to give an average performance over the whole class of 112.91 points which has not been exceeded since 1931 (see Table III.). The first prize was awarded to "Mistley Amethyst" (No. 225) with 143.84 points, exhibited by Messrs. Brooks (Mistley), Ltd. The second and third prizes were awarded respectively to "Kirton Sundial" (No. 221) with 129.51 points and "Ashmoor Marvel" (No. 222) with 126.92 points, both animals being exhibited by Mr. Stuart Paul.

Class 17. *Red Poll Heifer.*—Entries 18: present 11. A very creditable average was obtained by the animals present in this class (see Table III.) although one animal failed to obtain the necessary points to reach the class standard of 66.7. The first prize was secured by Mr. J. G. Gray's "Abbeycombe Rosina" (No. 237) with 124.59 points, that is by a mere fraction of a point less than the record for the class created in 1928 by "Basildon Rosalind" (see page 144). The second prize was won by "Abbeycombe Heather" (No. 238) with 109.40 points also exhibited by Mr. J. G. Gray, and the third prize by "Latimer Meadow Dell" (No. 230) with 105.99 points exhibited by the Lady Chesham.

Class 18. *Welsh Black Cow.*—Entries 8 ; present 6. Although two animals failed to obtain sufficient points to attain the class standard of 90, the excellent performances of the remaining four resulted in a record average of 110.11 points for the class (see Table III). The first prize was won easily by " Grace " (No. 249) with 160.67 points, which is easily a record for the breed (see page 144). The previous record of 152.22 points was set up in 1933 by " Bodelwa Beauty 7th." It is probable that the average daily yield of milk 67.65 lbs. is also a breed record for the show, but this would need verification. The cow " Grace " (No. 249) was exhibited by the Hon. Lady Shelley-Rolls. The second prize went to Mrs. E. H. Spottiswoode's " Gwern Endeavour " (No. 253) with 119.89 points and the third prize to Mr. N. Vosper's " Llanychan Tetsi " (No. 251) with 118.42 points.

Class 19. *Ayrshire Cow over* 5 *years old.*—Entries 17 ; present 9. The Ayrshire Cows were divided into two classes, those over 5 years old and those under 5 but over 3 years old (see class 20), for the first time at the 1935 Show and therefore in making comparisons with former years this fact must be borne in mind. The animals in this class maintained the high standard expected of them, every animal securing points above the class standard. The first prize was won by Mr. David Smith's " Thornhill Mermaid 2nd " (No. 260) with 170.91 points. The second prize was secured by Mr. James Turner's " Loaninghead May " (No. 269) with 163.28 points and the third prize by Mr. John N. Drummond's " Bargower Miss Donald 3rd " (No. 254) with 161.96 points. " Thornhill Mermaid 2nd " (No. 260) also secured the highest individual award in the Show, namely the B.D.F.A. Supreme Individual Championship Trophy.

The Rowallan Cup is awarded to the owner of the Ayrshire Cow or Heifer gaining the greatest number of points on Inspection in Milking Trials and Butter Tests. Points for inspection are awarded to the first six animals in order of merit as follows : 100, 90, 80, 70, 65, 60. In the case of Heifers 15% of the total points in the milking Trials and the Butter Tests are added to their scores. The winner was Mr. David Smith's " Thornhill Mermaid 2nd " (No. 260) with 324.66 points and the reserve Mr. W. A. Thomson's " Dalpeddar Whisper " (No. 280) with 293.42 points.

Class 20. *Ayrshire Cow over* 3 *years and under* 5 *years old.*—Entries 10 ; present 7. The animals present in this new class put up nearly as good an average, 141.25 points, as the older cows in Class 19 which gave a figure of 149.60. The first prize was won by Mr. W. A. Thomson's " Dalpeddar Whisper " (No. 280) with 157.17 points. The second prize went to Mr. John N. Drummond's " Bargower Miss Donald 7th " (No. 271) with 153.41 points and the third to Mr. A. Cochrane's "Stannock Whitie 5th" (No. 275) with 145.44 points. Mr. W. A. Thomson's cow (No. 280) was also reserve for the Breeder's Challenge Cup.

Class 21. *Ayrshire Heifers.*—Entries 28; present 13. The animals present set up an average class record of 106.39 points (see Table III.) and deserve high commendation. The first prize winner, "Bargower Silverbell 14th" (No. 282) exhibited by Mr. John N. Drummond created a record for Ayrshire Heifers by scoring 145.52 points thus beating the previous record of last year of 136.15 points obtained by "Bargower Miss Donald 7th" (see page 144). The second prize went to "Bargower Queenie 6th" (No. 281) with 141.67 points, also exhibited by Mr. John N. Drummond. "Howwell Gloria" (No. 307), exhibited by The Clement Estates Co., secured the third prize with 122.52 points and a fourth prize was awarded to "Kirkhill Betsy 2nd" (No. 287) owned by The Hannah Dairy Research Institute.

Class 22. *Guernsey Cow over* 5 *years old.*—Entries 11; present 8. All the animals exhibited obtained the class standard of 85 points, but with the exception of the first prize winner were not outstanding in merit. Mr. Carl Holmes' "Dairymaid of Riduna" (No. 310) easily obtained the first prize with 141.36 points; the second prize went to Capt. H. J. Pilbrow's "Bon Espoir Lady 4th" (No. 317) with 117.60 points and the third prize to Mr. E. D. Fairweather's "Rex's Primrose of Maison de Bas" (No. 318) with 117.10 points.

The Stagenhoe Cup is awarded to the owner of the Guernsey Cow or Heifer gaining the greatest number of points on Inspection (as for the Spencer Cup, see page 142), in the Milking Trials and Butter Tests. The Cup was easily won by Mr. Carl Holmes' "Dairymaid of Riduna" (No. 310) with 247.61 points, with Mr. H. A. Y. Dyson's "Primrose Poltimore of Payhay" (No. 322) as reserve with 220.16 points.

Class 23. *Guernsey Cow under* 5 *years old which has prodcued two or more calves.*—Entries 13; present 9. The animals present in this class secured a better average in the milking trial points than in the past 3 years. All competitors were above class standard of 56.7 points with appreciable margins to spare. The first prize was secured by Mr. H. A. T. Dyson's "Primrose Poltimore of Payhay" (No. 322) with 131.91 points; the second prize, by Lord Swaythling's "Bladen Meadow Sweet 6th" (No. 326) with 128.62 points, and the third prize, by Mr. E. H. Lane's "Molly 2nd of Crabwood" (No. 323) with 120.26 points.

Class 24. *Guernsey Heifer which has produced her first and only calf at or under the age of* 2 *years and nine months.*—Entries 11; present 5. The number of competitors in the show this year was only half that of the previous year, but their average points (see Table III.) were higher than for the past two years. "Reading Ina (No. 342), exhibited by The Hon. A. E. Guinness easily won the first prize with 126.89 points. The second prize went to Lord Swaythling's "Bladen Gay Lass 2nd" (No. 337) with 108.84 points and the third prize to Mrs. J. Sutcliffe Pyman's "Norsebury Rosemary 2nd" (No. 334) with 101.61 points.

Class 25. *Jersey Cow over* 5 *years old.*—Entries 19, present 14. This was an exceptionally good class and every animal secured points well above the class standard of 90. So excellent was the all round performance of the fourteen competitors that they set up a record of 122.70 for the average points (see Table III.); this record was not created by exceptionally outstanding merit of one animal but resulted from a high level throughout the whole class. Mrs. R. M. Foot's "White Hill Happy May" (No. 349) won the first prize with 157.41 points; the second prize went to Mr. M. F. North's "Wotton Bella Donna" (No. 351) with 143.78 points and the third prize to Mr. J. W. McCallum's "Sonata" (No. 356) with 140.89 points. A fourth prize was awarded to "Eucalia's Jest" (No. 361) exhibited by the Ovaltine Dairy Farm. Mrs. R. M. Foot's cow (No. 349) also won the Breeder's Challenge Cup and the National Milk Challenge Cup.

The Blythwood Production Bowl is awarded to the owner of the Jersey cow of heifer gaining the highest award of points in the milking trials and butter tests. The Bowl was won by Mrs. R. M. Foot's "White Hill Happy May" (No. 349) with 204.16 points and the reserve was Mr. J. W. McCallum's "Sonata" (No. 356) with 194.49 points.

The Loxwood Jubilee Cup is awarded to the owner of the Jersey Cow or Heifer obtaining the greatest number of points for Milk, Butter, Lactation. The points are awarded as follows:—1 for every pound of milk taking the average of the two days, 2 for every ounce of butter, and for the first six animals on Inspection points as follows: 20, 16, 12, 8, 5, 3. The lactation points are as usual (see page 125). The average butter fat must not be less than 4.5 per cent. This Cup was awarded for the first time at the 1935 Show and its award can hardly be regarded as satisfactory when it is realised that the difference between the points of the winning animal and the reserve was only 0.05. The winner was "Queen's Dream Lady" (No. 371) with 116.50 points. The animal was exhibited by the Ovaltine Dairy Farm. The reserve animal was Mr. J. W. McCallum's "Sonata" (No. 356) with 116.45 points.

Class 26. *Jersey Cow under* 5 *years old and which has produced two or more calves.*—Entries 10; present 6. The entries were down in this class compared with last year and ten less animals put in an appearance at the Show. All the competitors were above standard, but the average for the class compared with recent years must be regarded as rather poor especially in view of the small entry (see Table III.). The first prize was awarded to "Queen's Dream Lady" (No. 371) with 126.99 points, exhibited by The Ovaltine Dairy Farm. The second prize went to Mrs. Henry Hawkins' "Everdon Bowlina's Flora" (No. 366) with 123.85 points and Mrs. G. J. Caddey's "Cambraie Elfa 2nd" (No. 364) was third with 106.53 points.

Class 27. *Jersey Heifer which has produced her first and only calf at or under 2½ years.*—Entries 14; present 10. The competitors in this class were all above standard and succeeded in averaging 89.67 points which has only been exceeded once since 1928 (see Table III.) "Empire Mary" (No. 377), exhibited by Mrs. Henry Hawkins took the first prize with 113.20 points; the second prize went to Mr. M. F. North's "Conyboro Premature 6th" (No. 380) with 107.48 points and the third prize to "Minterne Muriel" (No. 373) with 106.72 points, exhibited by Col. the Lord Digby. Mrs. Henry Hawkins' heifer (No. 377) was also reserve for the National Milk Challenge Cup.

Class 28. *Kerry Cow.*—Cancelled.

Class 29. *Kerry Heifer.*—Cancelled.

It is regrettable that insufficient entries in Classes 28 and 29 resulted in their cancellation with the result that no representatives of this Breed were present at the Show. In view of the Breed's good showing last year, a competition this year was confidently expected and many visitors thought their absence deplorable.

Class 30. *Dexter Cow.* Entries 4; present 4. One cow failed to obtain the class standard of 70 points, but the performance of the other representatives of the breed were satisfactory. The first prize was won by Lady Loder's "Grinstead Nightingale 3rd" (No. 389) with 97.59 points, the second prize by "Princess 2nd of Grinstead" (No. 390) with 80.13 points, also exhibited by Lady Loder. The third prize was awarded to "Grinstead Dollie 2nd" (No. 387) with 72.44 points exhibited by the Comtesse Elizabeth de Pret Roose.

The Loder Cup is awarded to the owner of the Dexter Cow or Heifer gaining the most points on Inspection (as for the Spencer Cup, see page 142), in the Milking Trials and Butter Tests. The Cup was won by Lady Loder's "Grinstead Nightingale 3rd" (No. 389), the only animal eligible to compete, with a total of 180.09 points.

Class 31. *Dexter Heifer.* For the second year in succession this class was cancelled owing to insufficient entries.

NOTES ON CLASSES 32 TO 39.

The above classes are for the progeny of bulls and the awards are made solely on the basis of the performances of two animals the progeny of each bull.

Each animal must attain the class standard to be eligible to compete and the awards are given on the total points gained above the respective class standard of each animal.

Class 32. *Progeny of Dairy Shorthorn Bull.*—Entries 7; present 6. The first prize was won by the progeny of "Bourneplace Lord Pimpernel 2nd" (228422), two young cows "St. Clere Ruby 6th" (No. 27) and "St. Clere Eileen 3rd" (No. 28) with a total of 105.23 points. The animals were exhibited by the St. Clere Estates, Ltd. The second prize went to "Greattew Lady Jane" (No. 44) and "Greattew Foggathorpe 3rd" (No. 45) with a total score of 103.98 points. The animals were exhibited by Mr. R. Tustian and were the progeny of the bull "Iwerne Ruben 15th" (242006). The third prize was won by Mr. C. J. Allday's two cows "Fothering Babette 2nd" (No. 32) and "Fothering Foggathorpe 2nd" (No. 33), the progeny of the bull "Histon Foggathorpe Dairyman" (216355) with a total score of 90.95 points. One pair of animals was disqualified as one animal failed to reach the class standard.

The following table illustrates the method of calculation.

Progeny of	Catalogue No.	Class	Milking Trial Points.	Class Standard.	Points above Class Standard.	Total.	Award.
Bourneplace Lord Pimpernel 2nd (228422)	27	2	142.76	83.3	59.46	105.23	1st Prize.
	28	2	129.07	83.3	45.77		
Iwerne Ruben 15th (224006)	44	2	134.50	83.3	51.20	103.98	2nd Prize.
	45	2	136.08	83.3	52.78		

Class 33. *Progeny of Lincolnshire Red Shorthorn Bull.*—Entries 3; present 3. The first prize was secured by the progeny of the bull "Bendish Dairy King" (26463). The two animals, exhibited by Messrs. Chivers & Sons, were "Histon Dairymaid 65th" (No. 87) and "Histon Duchess 20th" (No. 90) and secured a score of 95.18 points. The second prize was won by the progeny of "Ketteringham Milkman" (19549). The two animals, exhibited by Mr. F. Russell Wood were the cow "Bendish Nancy 25th" (No. 86) and the heifer "Bendish Bess 18th" (No. 99) and they scored 55.27 points. The third prize was won by Messrs. John Evens and Son's two heifers "Burton Young Cherry 25th" (No. 103) and "Burton Vic 28th" (No. 104), the progeny of "Orma Eclipse" (C.H.B. 239224), with a score of 37.56 points.

Class 34. *Progeny of British Friesian Bull.*—Entries 6; present 4. No pair of animals satisfied the necessary conditions. One animal of each pair was either disqualified entirely or failed to reach the class standard.

Class 35. *Progeny of Red Poll Bull.*—Entries 1; present 1. The first prize was awarded to the only pair of animals present, the progeny of "White Hill Cub Hunter" (15166). The two animals were Mrs. R. M. Foot's cow "White Hill Charming Delight" (No. 197) and heifer "White Hill Charming Rosemary" (No. 231) and they secured 42.58 points.

Class 36. *Progeny of Ayrshire Bull.*—Entries 9; present 5. The first prize was won easily by Mr. John N. Drummond's cows "Bargower Queenie 6th" (No. 281) and "Bargower Silverbell 14th" (No. 282), the progeny of "Bargower Straight Away" (26782), with a remarkably high total score of 153.79 points. The second prize also went to the same exhibitor showing two cows "Bargower Miss Donald 5th" (No. 255) and "Bargower Miss Donald 7th" (No. 271), the progeny of "Bargower Brigadier (28441). The animals obtained 107.12 points above standard. The third prize was won by Mr. James Mackie's cow "Relief Sprightly 2nd" (No. 279), and heifer "Relief Joan" (No. 305), the progeny of "Relief Footstep" (36882), with a total of 87.87 points.

Class 37. *Progeny of Guernsey Bull.*—Entry 1; No award.

Class 38. *Progeny of Jersey Bull.*—Cancelled. No entries.

Class 39. *Progeny of Bull of any other Breed.*—Entries 3, all from the South Devon herd; present 1. The prize was won by Mr. George Wills' two South Devon Cows "Milkmaid 3rd" (No. 172) and Milkmaid 5th" (No. 173), the progeny of "Wychbrook Champion (10995). The animals scored 127.86 points above the class standards.

CHALLENGE CUPS AND TROPHIES

Open to all Breeds.

1. *The British Dairy Farmers' Association's Supreme Individual Championship Trophy.*—This trophy, the highest and most important award which can be won by an individual animal at the Show, is awarded to the owner of the cow gaining the greatest

number of points on Inspection, in the Butter Tests and in the Milking Trials provided that each milk analysed during the Trials contains not less than 3 per cent of fat and 8.5 per cent of solids-not-fat.

After the Milking Trial and Butter Test figures are published a Breed Society may then select not more than two animals of its respective Breed from the cow classes to parade before the Inspection Judge.

Each animal must have secured points in the Milking Trials and Butter Tests in excess of her class standard.

The Judging for the Inspection Points was carried out at the 1935 Show by Mr. Walter Wilson, who is required by the conditions to award 125 points to the animal he considers best and to the other cows points in accordance with his opinion.

Eleven animals from the following Breeds paraded, Dairy Shorthorn (two), British Friesian (two), South Devon (one), Ayrshire (two), Guernsey (two), Jersey (two) and the following table gives the points awarded.

Cow.		Points gained in				
Number and Breed.		Milking Trials.	Butter Tests.	Inspection.	Total Points.	Award.
260	Ayrshire	170.91	53.75	125.00	349.66	Winner
7	Dairy Shorthorn	170.92	45.50	115.00	331.42	Reserve
254	Ayrshire	161.96	50.25	100.00	312.21	
112	British Friesian	167.42	47.00	85.00	299.42	
115	British Friesian	181.52	50.00	55.00	286.52	
74	Dairy Shorthorn	122.42	36.25	120.00	278.67	
310	Guernsey	141.36	61.25	75.00	277.61	
361	Jersey	131.75	42.85	95.00	269.60	
171	South Devon	149.36	46.25	65.00	260.61	
322	Guernsey	131.91	38.25	80.00	250.16	
371	Jersey	126.99	50.75	70.00	247.74	

The winner of the Trophy is the Ayrshire Cow " Thornhill Mermaid 2nd " (No. 260) exhibited by Mr. David Smith, and the reserve the Dairy Shorthorn cow " Harescombe Margaret " (No. 7) exhibited by Mr. E. H. Birley.

Lord Rowallan, the President of the Association, in the presence of a distinguished and enthusiastic gathering, presented the Trophy to the winner.

2. *The Bledisloe Challenge Trophy.*—This trophy is awarded to the Breed Society judged to have the best exhibit of six cows, taking into consideration the performance in Inspection and Milking Trials.

The six cows were selected by the Breed Societies after the Milking Trial Points were published and were paraded as teams before the Inspection Judge, Mr. James Howie, on Wednesday afternoon. The Inspection Judge is instructed to award 500 points to the team he considers best and lower points to the other teams in accordance with his opinion.

As will be seen from the following table, teams from seven Breeds paraded and the winning team were Ayrshire cows with 1446.69 points and the reserve, the Dairy Shorthorn team with 1347.22 points.

AYRSHIRE.

No. in Catalogue.	Milking Trial Points.
260	170.91
254	161.96
280	157.17
265	155.49
271	153.41
262	147.75
Total Milking Trial Points	946.69
Inspection Points ...	500.00
TOTAL	1446.69

WINNING TEAM.

DAIRY SHORTHORN.

No. in Catalogue. ...	Milking Trial Points.
7	170.92
13	155.99
17	171.36
18	134.13
20	158 93
66	155.89
Total Milking Trial Points	947.22
Inspection Points ...	400.00
TOTAL	1347.22

RESERVE TEAM.

RED POLL.

No. in Catalogue.	Milking Trial Points.
201	153.73
221	129.51
208	146.27
225	143.84
202	129.36
191	134.44
Total Milking Trial Points	837.15
Inspection Points ...	320.00
TOTAL	1157.15

BRITISH FRIESIAN.

No. in Catalogue.	Milking Trial Points.
112	167.42
115	181.52
120	151.11
122	174.13
127	148.45
133	165.28
Total Milking Trial Points	987.91
Inspection Points ...	150.00
TOTAL ...	1137.91

JERSEY.

No. in Catalogue.	Milking Trial Points.
350	105.25
360	128.60
361	131.75
364	106.53
367	104.40
371	126.99
Total Milking Trial Points	703.52
Inspection Points ...	380.00
TOTAL	1083.52

LINCOLNSHIRE RED.

No. in Catalogue.	Milking Trial Points.
86	111.90
87	147.31
88	145.94
90	147.87
91	145.99
93	116.95
Total Milking Trial Points	815.96
Inspection Points ...	100.00
TOTAL	915.96

GUERNSEY.

No. in Catalogue.	Milking Trial Points.
310	141.36
317	117.60
318	117.10
322	131.91
325	118.45
326	128.62
Total Milking Trial Points	755.04
Inspection Points ...	50.00
TOTAL	805.04

A summary of the team results detailed above is given in the following table.

Breed.	Milking Trial Points.	Inspection Points.	Total.	Award.
Ayrshire	946.69	500.00	1446.69	Winner.
Dairy Shorthorn	947.22	400.00	1347.22	Reserve
Red Poll	837.15	320.00	1157.15	
British Friesian	987.91	150.00	1137.91	
Jersey	703.52	380.00	1083.52	
Lincolnshire Red	815.96	100.00	915.96	
Guernsey	755.04	50.00	805.04	

At the request of Lord Rowallan, the President of the Association, Lord Bledisloe presented the Trophy to the President of the Ayrshire Cattle Herd Book Society in the presence of a large and enthusiastic gathering.

3. *The Morrison Challenge Trophy.*—This trophy is awarded to the owner of the cow exhibited at three consecutive Dairy Shows which gains the greatest number of points at the three Shows according to the following scale :—(*a*) the points in the Milking Trials above the class standard ; (*b*) three times the number of points above the class standard in the Butter Tests (*c*) Inspection points as follows ; 1st prize, 40 ; 2nd prize, 30 ; 3rd prize, 20 ; 4th prize or reserve, 10 points.

Three cows were eligible, and the Trophy was won by Mr. George Wills' South Devon cow " Milkmaid 3rd " (No. 172). " Milkmaid 3rd " also won the Trophy for Mr. G. Wills in 1934.

The reserve animal was Mr. J. H. Brown's British Friesian cow "Marshgreen Kathleen" (No. 115). The points obtained by these two animals are as follows :—

"MILKMAID 3RD."

Year.	Catalogue No.	Milking Trial.			Butter Test.			Inspection.	
		Points.	Standard.	Net Points	Points.	Standard.	Net Points	Award.	Points.
1933	166	123.18	83.3	39.88	40.25	28.3	35.85	—	—
1934	173	144.88	83.3	61.58	38.50	28.3	30.60	3rd	20.00
1935	172	149.01	100.0	49.01	45.50	34.0	34.50	1st	40.00
			Total ...	150.47		Total ...	100.95	Total	60.00
						Grand Total		311.42	

"MARSHGREEN KATHLEEN."

Year.	Catalogue No.	Milking Trial.			Butter Test.			Inspection.	
		Points.	Standard.	Net Points	Points.	Standard.	Net Points	Award.	Points.
1933	132	141.40	91.7	49.70	44.50	28.3	48.60	—	—
1934	141	155.71	91.7	64.01	37.25	28.3	26.85	—	—
1935	115	181.52	110.0	71.52	50.00	34.0	48.00	—	—
			Total ...	185.23		Total ...	123.45	Total	0
						Grand Total		308.68	

4. *The Barham Challenge Cup.*—This Cup is awarded to the owner of the cow gaining the greatest number of points in the milking Trials. The winner this year was Mr. J. H. Brown's British Friesian cow "Marshgreen Kathleen (No. 115) with 181.52 points and the reserve, also a British Frisian cow, was Mr. Cecil Ball's "Abingworth Dainty" (No. 114) with 176.51 points.

5. *The Spencer Challenge Cup.*—This cup is awarded to the owner of the cow gaining the highest number of points in the Milking Trials, Butter Tests and Inspection Classes. The points for Inspection are allotted as follow :—first prize 50 ; second prize 45 ; third prize 40 ; fourth place 35 ; fifth place 30 ; and sixth place 25 points.

The Cup was won by Mr. David Smith's Ayrshire cow "Thornhill Mermaid 2nd" (No. 260) with 274.66 points, the reserve being Mr. Cecil Ball's British Friesian cow "Abingworth Dainty" (No. 114) with 264.76 points.

6. *The Shirley Cup.*—This cup is awarded to the owner of the cow giving the greatest average daily weight of milk, provided the milk does not contain less than 3 per cent. of fat and 8.5 per cent. of solids-not-fat.

The winner was Mr. J. H. Brown's British Friesian cow " Marshgreen Kathleen " (No. 115) with 87.90 lbs. of milk and the reserve was Mr. Cecil Ball's British Friesian " Abingworth Dainty " (No. 114) with 83.55 lbs. of milk.

7. *The Breeders Milk Challenge Trophy.*—This trophy, awarded for the first time at the 1935 Show, is given to the owner of the Cow or Heifer obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight, lactation points being added. To compete for this Trophy, the animals must have been bred by the owner and must be stalled with the cattle from licensed herds or must have passed the tuberculin test on or after the 1st August, 1935.

The winner was Mrs. R. M. Foot's Jersey Cow " White Hill Happy May " (No. 349) with 178.88 points, the reserve being Mr. W. A. Thompson's Ayrshire Cow " Dalpeddar Whisper " (No. 280) with 154.41 points.

8. *The National Milk Challenge Cup.*—This Cup is awarded to the owner of the cow or heifer obtaining in the Milking Trials, the greatest number of points per 1,000 lbs. live weight, the points for lactation being added.

Once again this Cup was won by a Jersey cow, Mrs. R. M. Foot's " White Hill Happy May " (No. 349) with 178.88 points and the reserve was a Jersey heifer, " Empire Mary " (No. 377) with 176.74 points, exhibited by Mrs. Henry Hawkins.

9. *The Robert L. Mond Special Prize* is awarded to the owner of two animals, the progeny of one registered bull, gaining the greatest number of points in the milking trials above the class standard (see pages 137 and 138).

An outstanding performance was made by Mr. John N. Drummond's two Ayrshire heifers " Bargower Queenie 6th " (No. 281) and " Bargower Silverbell 14th " (No. 282) in securing a total of 153.79 points above the class standards. Both heifers are the progeny of the bull " Bargower Straight Away " (26782).

The reserve was awarded to the South Devon Cow " Milkmaid 3rd " (No. 172) and the South Devon Heifer " Milkmaid 5th " (No. 173) owned by Mr. George Wills and the progeny of the Bull " Wychbrook Champion " (10995). The total points above the class standards was 127.86.

A summary of the distribution of the trophies and reserve positions for open competttions among the Breeds for the 1935 Show is as follows :—

	Trophy.	Winner.	Reserve.
1	Supreme Champion	Ayrshire	Dairy Shorthorn
2	Bledisloe Trophy	Ayrshire	Dairy Shorthorn
3	Morrison Trophy	South Devon	British Friesian
4	Barham Cup	British Friesian	British Friesian
5	Spencer Cup	Ayrshire	British Friesian
6	Shirley Cup	British Friesian	British Friesian
7	Breeders Cup	Jersey	Ayrshire
8	National Milk Cup	Jersey	Jersey
9	Robert L. Mond Prize	Ayrshire	South Devon

The Record Performance Table for each class introduced four years ago, is given below with such alterations as have been rendered necessary. It is possible that certain errors still exist in this Table, and any information of any record incorrectly given will be greatly appreciated.

RECORD PERFORMANCES.

Highest Points gained in the Milking Trials.

Year.	Breed and Class.	Name of Animal.	No. in Catalogue.	Points.
1931	Dairy Shorthorn Cow (over 5 years)	" Orfold Jessy 2nd "	9**	186.78
1931	Dairy Shorthorn Cow (3 to 5 years)	" Greattew Darling 2nd "	26**	168.53
1934	Dairy Shorthorn Heifer	" St. Clere Ruby 6th "	61**	132.75
1931	Dairy Shorthorn Cow (Non-pedigree)	" Maud "	81**	198.35
1919	Dairy Shorthorn Heifer (Non-pedigree)	" Gem "	81*	118.80
1931	Lincolnshire Red Cow	" Wormleighton Daffodil 4th "	103**	195.96
1935	Lincolnshire Red Heifer	" Wratting Cherry 3rd "	101**	126.23
1932	British Friesian Cow (over 5 years)	" Oakham Dainty "	111**	215.30
1928	British Friesian Cow (3 to 5 years)	" Holyport Unity "	135**	180.10
1931	British Friesian Heifer	" Piddington Eve "	149**	133.92
1930	South Devon Cow (over 5 years)	" Milkmaid 14th "	181**	198.50
1935	South Devon Cow (3 to 5 years)	" Milkmaid 5th "	173**	162.15
1932	South Devon Heifer	" Ferry Primula "	186**	114.83
1934	Devon Cow	" Corton Comet "	184**	160.20
1931	Red Poll Cow (over 5 years)	" Henham Lorinda "	185**	177.32
1928	Red Poll Cow (3 to 5 years)	" Knepp Beryl 3rd "	188**	154.70
1928	Red Poll Heifer	" Basildon Rosalind "	211**	124.80
1926	Blue Albion Cow	" Elsenham Jessie "	264*	156.80
1935	Welsh Black Cow	" Grace "	249**	160.67
1932	Ayrshire Cow (over 5 years)	" Eglinton Juno "	228**	206.10
1935	Ayrshire Cow (3 to 5 years)	" Dalpeddar Whisper "	280**	157.17
1935	Ayrshire Heifer	" Bargower Silverbell 14th "	282**	145.52
1929	Guernsey Cow (over 5 years)	" Hadham Goldstream 11th "	259*	158.60
1929	Guernsey Cow (3 to 5 years)	" Calehill Charm "	268**	164.30
1932	Guernsey Heifer	" Dairy Queen of Clover Top "	260**	137.20
1931	Jersey Cow (over 5 years)	" Lady Spotted Pearl "	300**	177.86
1932	Jersey Cow (3 to 5 years)	" Wotton Early Minx "	279**	138.00
1931	Jersey Heifer	" Fairseat Peggy 2nd "	326**	119.51
1925	Kerry Cow	" Buckland Peace 2nd "	394*	134.20
1929	Kerry Heifer	" Hattingley Ebony "	324**	85.00
1928	Dexter Cow	" Grinstead Taxus "	338*	105.19
1929	Dexter Heifer	" Grinstead Fuchsia 2nd "	335*	63.30

**Milked thrice daily. *Milked twice daily.

RECORD YIELDS OF MILK.

Greatest average yields for two days.—Cows milked thrice daily :—

1929—British Friesian cow " Penshurst Lofty " (No. 124**), 102.65 lbs.

Greatest average yield for two days.—Cows milked twice daily :—

1924—British Friesian cow " Beccles Peggotty " (No. 154*) 85.1 lbs.

Greatest yield of milk at one milking :—

1921—Dairy Shorthorn (non-pedigree) cow " Golden Sovereign " (No. 89*) 47.6 lbs.

The following tables supply valuable information on the performances of the different breeds in their respective classes at the 1935 and preceding Shows.

Table I contains in summarised form the entries, the average live weight, milk yield, fat percentages, and points earned and lost in each class, also the average milk yield and points per 1,000 lbs. live weight.

Table II shows the number of animals tested, average points gained, number of animals attaining the Association class standard points, and the average live weight of each class at the last three Shows.

Table III shows the average points in the Milking Trials by each class each year since 1922 and the ten year average.

Table IV shows the highest points gained in each class in each year since 1923.

Table V shows the average yield and quality of the milk yielded by each class at the 1935 Show.

Table VI shows the number of animals yielding milk deficient in fat and solids not-fat in each class of each Show since 1923.

For comparative purposes the figures for cows milked twice daily and those milked thrice daily are given separately.

TABLE I.—SHOWING THE PERFORMANCE OF EACH CLASS—1935.

Class.	DESCRIPTION.	Number in Class.		Average Live Weight of Class.	Average Yield of Milk	Yield of Milk per 1,000lbs. Live Weight.	Average Fat.	Animals below Standard for Fat at any Milking.	Animals losing Points for Quality of Milk.	Average Points lost by Class for Quality of Milk.	Points per 1,000 lbs. Live Weight.	Average Points gained by Class.	B.D.F.A. Standard Points for Class.
		Entered.	Present in Milking Trials.										
	Cows over 5 years old.			lbs.	lbs.	lbs.	%	%	%				
1	Dairy Shorthorn	20	9	1,378	64.18	46.67	3.91	0	0	0	101.3	139.59	100.0
4	Ditto Non-Pedigree	11	6	1,375	60.25	43.8	3.92	16.7	16.7	3.3	92.0	126.48	110.0
6	Lincoln Red Shorthorn	14	11	1,406	57.99	41.3	3.87	18.2	36.4	4.6	86.3	121.34	100.0
8	British Friesian	24	9	1,373	77.17	56.2	3.46	22.2	22.2	6.7	110.3	151.35	110.0
11	South Devon	6	5	1,689	54.78	32.4	4.84	20.0	20.0	4.0	75.0	126.68	100.0
14	Devon	4	4	1,481	54.63	36.9	4.05	25.0	75.0	10.0	72.5	107.39	90.0
15	Red Poll	22	17	1,242	57.42	46.2	4.35	11.8	29.4	5.9	100.1	124.30	100.0
18	Welsh Black	8	6	1,268	47.73	37.7	4.64	0	0	0	86.9	110.11	90.0
19	Ayrshire	17	9	1,240	68.05	54.9	4.20	0	0	0	120.6	149.60	100.0
22	Guernsey	11	8	1,145	47.69	41.6	4.54	12.5	12.5	1.3	98.4	112.74	85.0
25	Jersey	19	14	969	48.18	49.7	5.19	0	0	0	126.6	122.70	90.0
30	Dexter	4	4	726	34.36	47.3	3.82	25.0	25.0	2.5	107.1	77.76	70.0
	Carried forward	160	102										

TABLE 1.—SHOWING THE PERFORMANCE OF EACH CLASS—1935—*Continued.*

Class.	DESCRIPTION.	Number in Class.		Average Live Weight of Class.	Average Yield of Milk	Yield of Milk per 1,000 lbs. Live Weight.	Average Fat.	Animals below Standard for Fat at any Milking.	Animals losing Points for Quality of Milk.	Average Points lost by Class for Quality of Milk.	Points per 1,000 lbs. Live Weight.	Average Points gained by Class.	B.D.F.A. Standard Points for Class.
		Entered.	Present in Milking Trials.										
				lbs.	lbs.	lbs.	%	%	%				
	Brought forward	160	102										
	Cows over 3 and under 5 years.												
2	Dairy Shorthorn	30	23	1,275	57.99	45.5	3.93	0	0	0	95.9	122.18	83.3
9	British Friesian	16	9	1,250	71.61	57.3	3.26	55.6	66.7	16.7	101.7	27.11	91.7
12	South Devon	6	5	1,514	53.43	35.3	5.64	0	0	0	89.2	134.96	83.3
16	Red Poll	16	9	1,193	51.94	43.5	4.44	11.1	11.1	3.3	94.6	112.91	83.3
20	Ayrshire	10	7	1,154	66.96	58.0	3.92	28.6	28.6	2.9	122.4	141.25	83.3
23	Guernsey	13	9	1,031	45.81	44.5	4.50	0	0	0	104.1	107.30	70.8
26	Jersey	10	6	933	40.38	43.3	5.64	0	0	0	114.4	107.92	75.0
	Heifers.												
3	Dairy Shorthorn	14	9	1,099	38.80	35.3	4.16	0	0	0	78.7	86.51	66.7
5	Ditto Non-Pedigree	9	9	1,119	43.12	38.5	3.59	22.2	22.2	3.3	78.8	88.16	73.3
7	Lincoln Red Shorthorn	8	8	1,163	47.35	40.7	3.77	37.5	37.5	3.8	83.2	96.70	66.7
10	British Friesian	20	9	1,214	51.51	47.8	3.09	55.6	66.7	15.6	71.4	86.62	73.3
13	South Devon	7	3	1,395	40.94	29.3	4.73	33.3	33.3	3.3	66.1	92.23	66.7
17	Red Poll	18	11	1,052	42.81	40.7	3.91	9.1	9.1	0.9	87.2	91.72	66.7
21	Ayrshire	28	13	1,106	50.77	45.9	3.93	23.1	23.1	3.8	96.2	106.39	66.7
24	Guernsey	11	5	932	42.72	45.8	4.31	0	0	0	107.5	100.20	56.7
27	Jersey	14	10	750	34.22	45.7	5.68	0	0	0	119.6	89.67	60.0
	TOTAL	390	247										

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND NUMBER OF COWS ATTAINING THE ASSOCIATION'S STANDARD—1933 TO 1935.

Class.	DESCRIPTION.	B.D.F.A. Standard Points.	Number of Cows Tested.			Average Points Gained.			Number and Percentage of Cows above Standard.						Average Live Weight of Class.		
			1933	1934	1935	1933	1934	1935	1933		1934		1935		1933	1934	1935
										%		%		%	lbs.	lbs.	lbs.
1	Dairy Shorthorn Pedigree Cow ...	100.0	11	8	9	129.46	144.10	139.59	9	81.8	8	100.0	8	88.9	1,342	1,398	1,378
2	Ditto (3-5 years)	83.3	9	17	23	115.80	122.63	122.18	8	88.8	17	100.0	22	95.6	1,272	1,233	1,275
3	Ditto Heifer	66.7	17	20	9	80.33	90.79	86.51	14	82.3	17	85.0	8	88.8	1,019	1,090	1,099
4	Ditto Non-Pedigree Cow	110.0	4	8	6	126.88	139.33	126.48	3	75.0	7	87.5	5	83.3	1,367	1,343	1,375
5	Ditto ,, Heifer ...	73.3	3	5	9	99.35	97.53	88.16	3	100.0	5	100.0	7	77.8	1,024	995	1,119
6	Lincoln Red Shorthorn Cow ...	100.0	4	3	11	104.96	103.68	121.34	2	50.0	2	66.6	9	81.8	1,492	1,417	1,406
7	Ditto Heifer	66.7	5	4	8	86.19	104.77	96.70	4	80.0	4	100.0	8	100.0	1,179	1,172	1,163
8	British Friesian Cow	110.0	10	12	9	155.84	163.18	151.35	9	90.0	11	91.6	8	88.9	1,412	1,443	1,373
9	Ditto (3-5 years)	91.7	8	6	9	123.38	145.79	127.11	6	75.0	6	100.0	8	88.9	1,347	1,349	1,250
10	Ditto Heifer	73.3	9	6	9	91.71	91.22	86.62	7	77.7	5	83.3	5	55.6	1,152	1,106	1,214
11	South Devon Cow	100.0	7	6	5	103.18	134.81	126.68	5	71.4	6	100.0	4	80.0	1 586	1,519	1,689
12	Ditto (3-5 years)	83.3	9	5	5	104.09	132.25	134.96	8	88.8	5	100.0	5	100.0	1,540	1,599	1,514
13	Ditto Heifer	66.7	3	5	3	67.40	100.04	92.23	2	66.7	5	100.0	2	66.7	1,233	1,322	1,395
14	Devon Cow	90.0	—	4	4	—	111.13	107.39	—	—	2	50.0	2	50.0	—	1,498	1,481
15	Red Poll Cow	100.0	7	12	17	113.44	138.76	124.30	7	100.0	11	91.6	13	76.5	1,278	1,223	1,242
16	Ditto (3-5 years)	83.3	7	9	9	104.96	108.75	112.91	7	100.0	7	77.7	7	77.8	1,089	1,109	1,193
17	Ditto Heifer	66.7	8	13	11	82.00	82.01	91.72	6	75.0	10	76.9	10	90.09	1,038	1,036	1,052

N.B.—The whole of the above figures are based on cows milked thrice daily.

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND NUMBER OF COWS ATTAINING THE ASSOCIATION'S STANDARD—1933 TO 1935.—*Continued.*

Class.	DESCRIPTION.	B.D.F.A. Standard Points.	Number of Cows Tested.			Average Points Gained.			Number and Percentage of Cows above Standard.						Average Live Weight of Class.		
			1933	1934	1935	1933	1934	1935	1933		1934		1935		1933	1934	1935
										%		%		%	lbs.	lbs.	lbs.
18	Welsh Black Cow	90.0	5	4	6	106.30	98.52	110.11	3	60.0	2	50.0	4	66.7	1,160	1,203	1,268
19	Ayrshire Cow	100.0	8	14	9	140.57	151.15	149.60	7	87.5	13	92.8	9	100.0	1,271	1,227	1,240
20	Ditto (3-5 years)	83.3	—	—	7	—	—	141.25	—	—	—	—	7	100.0	—	—	1,154
21	Ditto Heifer	66.7	5	18	13	86.0	105.41	106.39	4	80.0	17	94.4	13	100.0	1,040	1,052	1,106
22	Guernsey Cow	85.0	6	8	8	118.76	112.54	112.74	6	100.0	8	100.0	8	100.0	1,051	1,028	1,145
23	Ditto (3-5 years)	70.8	9	4	9	99.56	102.70	107.30	9	100.0	4	100.0	9	100.0	996	1,074	1,031
24	Ditto Heifer	56.7	6	10	5	69.86	92.79	100.20	6	100.0	10	100.0	5	100.0	860	923	932
25	Jersey Cow	90.0	7	12	14	113.90	116.09	122.70	7	100.0	12	100.0	14	100.0	971	922	969
27	Ditto (3-5 years)	75.0	12	16	6	112.60	109.33	107.92	12	100.0	16	100.0	6	100.0	892	879	933
27	Ditto Heifer	60.0	13	6	10	82.87	87.51	89.67	12	92.3	6	100.0	10	100.0	782	806	750
28	Kerry Cow	80.0	—	9	—	—	102.21	—	—	—	9	100.0	—	—	—	881	—
29	Ditto Heifer	53.3	—	3	—	—	62.65	—	—	—	2	66.6	—	—	—	862	—
30	Dexter Cow	70.0	6	4	4	62.21	89.03	77.76	2	33.3	4	100.0	3	75.0	709	757	726
31	Ditto Heifer	46.7	4	—	—	57.40	—	—	4	100.0	—	—	—	—	501	—	—

N.B.—The whole of the above figures are based on cows milked thrice daily.

TABLE III.—AVERAGE POINTS GAINED IN THE MILKING TRIALS EACH YEAR SINCE 1922.

YEAR.		D.S. Cow over 5 years.	D.S. Cow 3-5 years.	D.S. Heifer.	D.S. Non-ped. Cow.	D.S. Non-ped. Heifer.	L.R.S. Cow.	L.R.S. Heifer.	B.F. Cow over 5 years.	B.F. Cow 3-5 years.	B.F. Heifer.	S.D. Cow over 5 years.	S.D. Cow 3-5 years.	S.D. Heifer.	Devon Cow.	R.P. Cow over 5 years.	R.P. Cow 3-5 years.
B.D.F.A. Class Standard ...		100.0	83.3	66.7	110.0	73.3	100.0	66.7	110.0	91.7	73.3	100.0	83.3	66.7	90.0	100.0	83.3
Milked Twice Daily.	1922	107.7	94.9	72.1	108.1	73.0	113.2	71.4	120.2	92.6	79.3	100.5	—	—	98.7	91.5	76.4
	1923	114.4	100.9	67.2	111.4	88.7	114.2	88.9	135.0	117.4	75.6	114.9	—	—	99.7	116.7	95.5
	1924	109.5	88.3	61.0	93.0	66.8	93.8	65.1	118.2	108.8	85.0	—	—	—	93.6	92.1	89.6
	1925	108.2	92.8	73.3	121.7	73.3	115.4	84.6	123.8	119.8	87.9	114.9	—	—	103.2	125.4	97.7
	1926	113.3	88.8	65.7	106.0	56.3‡	121.1	87.7	120.6‡	167.1‡	80.9	—	—	—	113.2‡	116.5	90.1
	1928	101.4	90.6	67.8	106.8	63.0	—	89.2	—	—	—	—	—	—	56.0	109.7	120.5‡
	1929	120.8	111.4	77.7	120.1	89.3	137.2‡	91.6	—	—	—	—	—	—	—	156.9‡	—
	1930	107.2	91.6	68.5	111.0	72.8	92.2	78.7	—	—	81.5	—	—	66.4	88.4‡	81.0‡	96.4
	1931	94.0	93.8	73.2	82.5‡	72.9	99.4‡	88.0	—	—	—	—	—	—	—	—	85.5
	1932	86.1	53.7	—	122.7	76.4	—	—	—	—	—	—	—	—	75.3	—	—
Average Points of last 10 Shows.		106.3	91.1	69.6	108.3	73.2	110.8	82.8	123.6	120.9	81.7	110.1	—	66.4	91.0	111.2	94.6
Milked Thrice Daily.	1928	127.6	95.1	75.3	—	73.6	128.8	95.7	125.6	133.4	88.0	127.4	—	—	—	84.6	126.6
	1929	147.0	112.3	79.2	106.8	—	125.7	83.2	153.0	136.4	78.6	139.7	—	—	138.4‡	119.8	102.2
	1930	131.2	107.1	80.8	120.6‡	59.9	121.9	—	125.5	131.4	85.5	135.6	—	—	45.8‡	122.5	119.0
	1931	139.7	130.7	87.6	164.9	91.9‡	140.5	87.0	161.4	162.0	112.9	140.7	—	100.8	—	147.2	130.0
	1932	138.7	126.6	94.6	133.2	67.8	96.7	80.5	142.7	122.6	104.1	125.0	120.4	95.7	—	113.9	110.9
	1933	129.5	115.8	80.3	126.9	99.3	104.9	86.2	155.8	123.4	91.7	103.2	104.1	67.4	—	113.4	105.0
	1934	144.1	122.6	90.7	139.3	97.5	103.6	104.7	163.1	145.7	91.2	134.8	132.2	100.0	111.1	138.7	108.7
	1935	139.6	122.2	86.5	126.5	88.2	121.3	96.7	151.4	127.1	86.6	126.7	135.0	92.2	107.4	124.3	112.9
Average Points of last 8 Shows.		136.7	116.6	84.4	131.3	82.6	117.9	90.6	147.3	135.3	92.3	129.1	122.9	91.2	100.7	120.6	114.4

‡Points for one animal only.

TABLE III.—AVERAGE POINTS GAINED IN THE MILKING TRIALS EACH YEAR SINCE 1922—*Continued.*

YEAR	R.P. Heifers.	B.A. Cow.	B.A. Heifers.	W.B. Cow.	A. Cow over 5 years.	A Cow 3-5 years	A. Heifers.	G. Cow over 5 years.	G. Cow 3-5 years.	G. Heifers.	J. Cow over 5 years.	J. Cow 3-5 years.	J. Heifers.	K. Cow.	K. Heifers.	Dexter Cow.	Dexter Heifer.
B.D.F.A. Class Standard... ...	66.7	100.0	66.7	90.0	100.0	83.3	66.7	85.0	70.8	56.7	90.0	75.0	60.0	80.0	53.3	70.0	46.7
Milked Twice Daily. 1922	64.7	—	—	—	95.7	—	78.5	88.4	72.4	62.2	79.7	—	72.1	75.3	49.9	59.7	—
1923	72.0	78.3	—	—	128.5	—	87.6	77.0	97.0	77.5	89.8	—	70.0	87.0	49.0	59.0	—
1924	71.5	100.3	—	—	134.1	—	93.2	77.4	82.3	76.2	91.9	—	80.0	79.6	38.6	—	—
1925	86.0	128.3	—	—	121.7	—	90.4	77.5	76.6	68.8	95.3	92.5	68.7	105.6	69.0	78.8	—
1926	77.2	120.1	—	—	—	—	—	91.4	89.5	64.8	98.6	97.7	60.5	112.3	65.5	62.6	—
1928	—	84.6	—	—	138.7‡	—	63.1‡	—	93.8‡	69.1‡	103.9	101.3	73.1	84.6	51.8	105.8	—
1929	77.0‡	130.0	—	—	—	—	—	115.6	132.3‡	86.7	94.7	92.4	74.7	71.9	—	68.8	—
1930	—	110.9	64.7	—	—	—	—	105.8‡	97.3‡	84.5‡	102.4	95.2	73.3	—	—	67.4	45.7
1931	76.3‡	103.6	83.0‡	—	—	—	—	98.1	90.0	—	112.5	85.0	68.5	87.6	28.6‡	52.1‡	51.1
1932	—	—	—	—	—	—	—	135.2	82.5	63.4	109.3	101.0	76.2	93.9	—	55.2	—
Average Points of last 10 Shows ...	74.9	107.0	73.8	—	123.7	—	82.6	96.3	91.4	72.5	96.8	95.0	71.7	88.6	50.2	67.7	48.4
Milked Thrice Daily. 1928... ...	74.6	—	—	—	138.4	—	104.1	111.2	99.9	77.4	114.3	93.5	97.2‡	80.8	68.6	83.8	—
1929... ...	88.0	—	—	—	143.9	—	104.1	143.7‡	113.8	—	106.9	107.9	82.9	94.0	69.1	86.1	—
1930... ...	72.4	—	—	97.2	127.4	—	90.8	113.5	114.6	110.0‡	100.7	79.7	80.9	102.1‡	71.9‡	74.4	50.2‡
1931... ...	95.5	113.7‡	115.2‡	—	149.3	—	95.2	123.0	114.9	102.1	122.3	115.4	96.5	—	—	58.5	—
1932... ...	—	—	—	—	162.8	—	101.4	109.7	93.0	107.0	112.3	115.8	86.6	79.9	—	76.4	—
1933... ...	82.0	—	—	106.3	140.6	—	86.0	118.8	99.6	69.9	113.9	112.6	82.9	—	—	62.2	57.4
1934... ...	82.0	—	—	98.5	151.1	—	105.4	112.5	102.7	92.7	116.0	109.3	87.5	102.2	62.6	89.0	—
1935... ...	91.7	—	—	110.1	149.6	141.3	106.4	112.7	107.3	100.2	122.7	107.9	89.7	—	—	77.8	—
Average Points of last 8 Shows ...	83.7	113.7	115.2	103.0	145.4	141.3	99.2	118.1	105.7	94.2	113.6	105.3	88.0	91.3	68.0	75.5	53.8

‡Points for one animal only.

TABLE IV.—SHOWING THE HIGHEST POINTS GAINED EACH YEAR SINCE 1925.

YEAR.	D.S. Cow over 5 years.	D.S. Cow 3-5 years.	D.S. Heifer.	D.S. Non-ped. Cow.	D.S. Non-ped. Heifer.	L.R.S. Cow.	L.R.S. Heifer.	B.F. Cow over 5 years.	B.F. Cow 3-5 years.	B.F. Heifer.	S.D. Cow over 5 years.	S.D. Cow 3-5 years.	S.D. Heifer.	Devon Cow.	R.P. Cow over 5 years.	R.P. Cow 3-5 years.
1925*	132.9	123.4	101.8	145.9	94.6	149.9	108.0	162.3	137.0	99.5	145.7	—	—	135.0	146.4	116.5
1926*	137.4	133.7	87.3	147.3	56.3	159.5	103.1	120.6	167.1	109.3	—	—	—	113.2	148.6	104.8
1926†	121.2	146.3	99.5	146.3	—	131.9	97.2	194.1	174.7	127.4	165.9	—	—	—	130.6	122.8
1928*	123.3	109.0	77.1	115.0	78.8	—	109.7	—	—	—	—	—	—	68.9	131.1	120.5
1928†	139.3	115.0	90.4	—	93.2	163.3	96.3	163.7	180.1	115.0	158.6	—	—	—	126.9	154.7
1929*	147.0	134.4	91.2	151.2	104.2	137.2	99.9	—	—	—	—	—	—	—	156.9	—
1929†	149.5	127.1	91.3	108.1	—	157.7	103.1	186.5	179.0	97.4	183.6	—	—	138.4	166.8	120.4
1930*	125.7	143.0	93.9	128.8	86.8	98.7	—	—	—	81.5	—	—	79.0	88.4	81.0	103.5
1930†	147.8	163.3	102.5	120.6	59.9	137.6	97.3	169.8	162.0	125.1	198.5	—	—	45.8	154.2	135.2
1931*	119.8	130.8	95.1	82.5	88.3	99.4	89.1	—	—	—	—	—	—	—	—	94.5
1931†	186.8	168.5	111.8	198.4	91.1	176.0	94.4	191.4	171.3	133.9	173.5	—	109.8	—	177.3	147.7
1932*	98.6	68.2	—	122.7	80.8	—	—	—	—	—	—	—	—	93.5	—	—
1932†	160.1	162.3	112.9	177.3	113.9	125.9	102.3	215.3	175.6	113.3	140.0	158.7	114.8	—	155.5	144.7
1933†	158.5	164.7	96.9	155.1	107.4	156.5	109.9	213.2	152.9	124.5	114.5	123.2	80.7	—	130.5	124.3
1934†	174.0	156.0	132.7	189.6	111.9	131.4	118.3	201.9	164.4	109.8	150.0	145.2	111.9	160.2	164.9	134.5
1935†	171.4	157.7	107.3	155.9	113.6	147.9	126.2	181.5	165.3	108.8	149.4	162.2	107.3	133.8	160.6	143.8

YEAR.	R.P. Heifers.	B.A. Cow.	B.A. Heifers.	W.B. Cow.	A. Cow over 5 years.	A. cow 3-5 years.	A. Heifers.	G. Cow over 5 years.	G.Cow 3-5 years.	G. Heifers.	J. Cow over 5 years.	J. Cow 3-5 years.	J. Heifers.	K. Cow.	K. Heifers.	Dexter Cow.	Dexter Heifers.
1925*	107.4	145.2	—	—	165.2	—	115.5	106.6	98.2	86.9	120.1	101.9	91.3	134.2	79.3	86.4	—
1926*	103.1	156.8	—	—	—	—	—	116.5	103.8	82.1	119.6	115.5	80.1	120.7	70.7	63.3	—
1926†	104.2	—	—	—	174.2	—	117.6	148.4	104.2	—	126.1	93.2	95.5	—	—	88.7	—
1928*	—	125.9	—	—	138.7	—	63.2	—	93.8	69.1	113.2	109.1	95.3	98.5	51.8	105.9	—
1928†	124.8	—	—	—	176.3	—	122.5	126.9	114.7	90.0	139.0	122.6	97.3	80.8	71.1	84.9	—
1929*	77.0	147.3	—	—	—	—	—	158.6	132.3	89.9	106.4	107.4	87.7	91.2	—	88.1	—
1929†	103.4	—	—	—	187.2	—	133.7	143.7	164.3	—	116.9	121.9	96.5	98.7	85.0	96.1	—
1930*	—	145.5	80.2	—	—	—	—	105.8	97.3	84.5	122.1	131.0	91.8	—	—	80.3	72.3
1930†	105.6	—	—	116.9	146.4	—	108.6	138.6	149.1	110.0	114.4	93.7	90.2	102.1	61.9	82.3	50.2
1931*	76.3	104.0	83.0	—	—	—	—	108.2	102.9	—	131.0	117.0	86.4	110.6	28.6	52.1	56.7
1931†	117.3	113.7	105.2	—	180.2	—	105.6	134.4	137.5	93.9	177.9	128.5	119.5	—	—	68.4	—
1932*	—	—	—	—	—	—	—	135.2	82.5	68.8	140.4	125.3	97.0	90.1	—	66.2	—
1932†	—	—	—	—	206.1	—	131.9	124.8	122.2	137.2	112.3	138.0	90.6	98.3	—	94.2	—
1933†	118.06	—	—	152.2	192.3	—	113.6	140.1	129.6	93.2	126.7	133.9	117.2	—	—	78.7	63.1
1934†	104.9	—	—	132.4	190.5	—	136.1	127.3	122.5	113.2	141.2	132.4	107.6	123.6	72.7	100.5	—
1935†	124.6	—	—	160.7	170.9	157.2	145.5	141.4	131.9	126.9	157.4	127.0	113.2	—	—	97.6	—

*Milked twice daily. †Milked thrice daily.

TABLE V—QUANTITY AND QUALITY OF MILK—1935.

Class.	BREED.	No. of Competitors.	Average Weight of Milk.			Total Weight of Milk.	Average Composition of Milk.								
							Fat.			Solids—not Fat.			Total Solids.		
			Morn.	Aft.	Even.		Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
			lbs.	lbs.	lbs.	lbs.	%	%	%	%	%	%	%	%	%
1	Dairy Shorthorn Cow—Pedigree ...	9	21.13	22.16	20.89	64.18	3.63	4.22	3.88	9.05	8.94	9.00	12.68	13.16	12.88
2	Ditto—Cow 3-5 years	23	19.55	19.16	19.28	57.99	3.70	4.19	3.91	9.20	9.08	9.15	12.90	13.27	13.06
3	Ditto—Heifer	9	12.71	13.11	12.98	38.80	3.90	4.31	4.26	9.37	9.33	9.39	13.27	13.64	13.65
4	Dairy Shorthorn Cow—Non-pedigree	6	20.38	20.30	19.57	60.25	3.76	4.11	3.90	9.30	9.06	9.15	13.06	13.17	13.05
5	Ditto—Heifer	9	14.46	14.33	14.33	43.12	3.40	3.55	3.82	9.28	9.21	9.27	12.68	12.76	13.09
6	Lincolnshire Red Cow	11	19.38	19.67	18.94	57.99	3.95	4.28	3.39	9.01	8.89	9.13	12.96	13.17	12.52
7	Ditto—Heifer	8	16.03	15.73	15.59	47.35	4.14	3.97	3.20	9.17	9.32	9.26	13.31	13.29	12.46
8	British Friesian Cow...	9	26.40	25.35	25.42	77.17	3.59	3.67	3.13	8.72	8.79	8.91	12.31	12.46	12.04
9	Ditto—Cow 3-5 years	9	24.02	24.19	23.40	71.61	3.25	3.39	3.13	8.75	8 88	8.83	12.00	12.27	11.96
10	Ditto—Heifer	9	16.97	17.53	17.01	51.51	2.85	3.40	3.10	8.83	8.91	8.85	11.68	12.31	11.86
11	South Devon Cow	5	18.87	18.10	17.81	54 78	5.04	4.95	4.54	9.13	9.13	9.34	14.17	14.08	13.88
12	Ditto—Cow 3-5 years	5	19.13	17.36	16.94	53.43	5.58	5.80	5.54	9.17	9.23	9.27	14.75	15.03	14.81
13	Ditto—Heifer	3	13.45	13.91	13.58	44.94	4.58	4.93	4.68	9.40	9.19	9.38	13.98	14.12	14.06
14	Devon Cow	4	17.66	18.54	18.43	54.63	4.16	4.09	3.91	8.62	8.54	8.72	12.78	12.63	12.63
15	Red Poll Cow...	17	19.31	18.96	19.15	57.42	4.36	4.29	4.41	8.79	8.74	8.83	13.15	13.03	13.24
16	Ditto—Cow 3-5 years	9	17.61	17.21	17.12	51.94	3.81	5.28	4.24	8.85	8.92	8.83	12.66	14.20	13.07
17	Ditto—Heifer	11	14.65	14.29	13.87	42.81	3.72	4.15	3.87	9.13	9.20	9.10	12.85	13.35	12.97
18	Welsh Black Cow	6	15.39	16.33	16.01	47.73	4.26	4.73	4.94	9.41	9.13	9.01	13.67	13.86	13.95
19	Ayrshire Cow	9	22.94	22.74	22.37	68 05	4.19	4.27	4.14	9.23	8.96	8.90	13.42	13.23	13.04
20	Ditto—Cow 3-5 years	7	22.77	22.36	21.83	66.96	3.79	4.26	3.71	9.34	9.34	9.29	13.13	13.60	13.00
21	Ditto—Heifer	13	17.03	17.22	16.52	50.77	3.62	4.34	3.82	9.17	9.29	9.08	12.79	13.63	12.90
22	Guernsey Cow	8	16.21	15.88	15.60	47.69	4.11	4.60	4.91	9.28	9.07	9.05	13.39	13.67	13.96
23	Ditto—Cow 3-5 years	9	15.15	15.31	15.35	45.81	4.74	4.68	4.09	9.37	9.22	9.09	14.11	13.90	13.18
24	Ditto—Heifer	5	14.02	14.48	14.22	42.72	4.10	4.32	4.51	9.21	8.99	9.11	13.31	13.31	13.62
25	Jersey Cow	14	16.29	16.30	15.59	48.18	4.86	5.50	5.20	9.44	9.16	9.41	14.30	14.66	14.61
26	Ditto—Cow 3-5 years	6	13.61	13.81	12.96	40.38	5.38	5.90	5.65	9.41	9.19	9.45	14.79	15.09	15.10
27	Ditto—Heifer	10	11.32	11.55	11.35	34.22	5.01	5.32	6.71	9.63	9.46	9.76	14.64	14.78	16.47
30	Dexter Cow	4	11.80	11.41	11.15	34.36	4.02	3.95	3.49	9.01	8.82	8.93	13.03	12.77	12.42

TABLE VI.—NUMBER OF ANIMALS YIELDING MILK DEFICIENT IN FAT AND OTHER SOLIDS.

BREED AND CLASS.	Less than 3 per cent. of Fat.										Less than 8.5 per cent. of Non-Fatty Solids.									
	1925	1926	1928	1929	1930	1931	1932	1933	1934	1935	1925	1926	1928	1929	1930	1931	1932	1933	1934	1935
Dairy Shorthorns—Ped. over 5 years ...	2	0	2	0	1	2	5	3	1	0	0	1	0	0	2	0	1	3	2	0
Ditto. 3-5 years	2	1	6	0	2	3	4	2	1	3	0	2	1	1	2	0	1	1	1	1
Ditto. Heifers	2	7	0	0	4	0	0	1	2	0	0	2	1	1	1	0	0	3	2	0
Dairy Shorthorns—Non-Ped. Cows ...	0	4	0	1	1	1	5	1	2	1	0	4	0	1	0	1	1	0	1	0
Ditto. Heifers	0	0	2	0	0	1	3	0	0	2	0	0	0	0	1	1	1	0	0	0
Lincoln Red Shorthorn Cows	2	1	1	1	1	1	3	1	0	1	0	0	0	2	4	0	2	1	0	2
Ditto. Heifers	0	0	0	0	3	0	1	2	0	3	1	1	0	2	0	0	0	0	1	0
British Friesian Cows. Over 5 years ...	9	3	7	1	6	1	9	3	2	2	3	5	2	6	3	4	7	3	5	1
Ditto. 3-5 years	3	3	1	4	2	0	5	5	0	5	2	3	0	2	2	1	3	2	2	2
Ditto. Heifers	0	2	4	1	5	2	1	2	3	5	0	2	1	2	3	0	0	3	2	2
South Devon Cows. Over 5 years ...	0	0	0	1	0	0	1	2	0	0	0	0	0	1	0	1	1	2	2	1
Ditto. 3-5 years	—	—	—	—	—	—	—	2	0	0	—	—	—	—	—	—	—	0	0	0
Ditto. Heifers	—	—	—	0	0	0	1	1	0	1	—	—	—	0	0	0	0	0	0	0
Devon. Cows	0	0	0	0	1	—	2	—	0	1	0	0	1	0	0	—	1	—	1	2
Red Poll. Cows over 5 years	0	0	2	2	2	0	2	2	0	2	0	0	0	1	0	1	1	1	0	4
Ditto. 3-5 years	0	1	1	1	4	2	—	0	0	1	1	0	1	0	1	2	—	0	0	1
Ditto. Heifers	0	0	0	0	1	0	—	1	2	1	1	0	0	0	1	0	—	0	1	0
Blue Albion. Cows	0	1	2	0	0	0	—	—	—	—	0	2	0	0	1	0	—	—	—	—
Ditto. Heifers	—	0	0	0	0	0	—	—	—	—	—	0	0	0	0	0	—	—	—	—
Welsh Black. Cows	0	0	—	—	0	—	—	1	1	0	0	0	—	—	1	—	—	0	0	0
Ayrshire. Cows over 5 years	2	0	2	2	3	2	3	0	3	0	2	0	0	3	3	2	2	0	3	0
Ditto. 3-5 years	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	0
Ditto. Heifers	0	1	1	2	1	1	1	1	2	3	1	0	0	1	1	0	0	1	0	0
Guernsey Cows. Over 5 years ...	0	0	0	0	1	0	1	0	2	1	1	0	0	1	2	1	0	0	0	0
Ditto. 3-5 years	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Ditto. Heifers	0	0	0	0	0	2	0	0	2	0	2	1	0	0	0	0	1	0	0	0
Jersey. Cows over 5 years	0	1	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0
Ditto. 3-5 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditto. Heifers	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Kerry. Cows	1	0	1	1	0	0	2	—	—	—	0	0	0	2	0	0	0	—	0	—
Ditto. Heifers	0	0	0	1	0	1	—	—	0	—	0	0	0	0	0	0	—	—	0	—
Dexter. Cows	1	—	0	0	0	2	2	3	0	1	0	—	0	2	1	1	0	0	0	0
Ditto. Heifers	0	—	0	0	1	0	—	0	—	—	0	—	0	0	0	0	—	0	—	—
Total	25	27	33	21	41	21	51	33	23	35	17	23	7	30	29	15	21	20	23	16
Number Tested	226	233	201	198	232	218	209	202	251	247	226	233	201	198	232	218	209	202	251	247

MILKING TRIALS, 1935.

CLASS 1.—DAIRY SHORTHORN COW, ENTERED IN OR ACCEPTED FOR COATES' HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1930. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD DURING A LACTATION PERIOD OF 45 WEEKS, RECORDED BY A RECOGNISED MILK RECORDING SOCIETY.

Number ...	3			5			7			9		
Name ...	Knells Elliott Fernleaf 2nd.			Thornby Foggathorpe 30th.			Harescombe Margaret.			Hastoe Beauty 7th.		
Born ...	Mar. 16, 1929.			June 16, 1927.			Feb. 14, 1929.			Feb. 16, 1930.		
Live weight, in lbs. ...	1,326			1,503			1,269			1,355		
Last Calved ...	Apr. 22.			July 31.			Sept. 15.			Sept. 30.		
Days since Calving ...	182			82			36			21		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	14.3	16.1	14.6	18.2	23.1	20.0	26.8	25.4	26.3	21.2	21.2	20.5
Weight of Milk, 2nd day ...	16.2	16.7	16.4	16.8	19.5	17.3	25.2	26.2	23.7	20.0	21.3	20.3
Total ...	30.5	32.8	31.0	35.0	42.6	37.3	52.0	51.6	50.0	41.2	42.5	40.8
Average ...	15.25	16.4	15.5	17.5	21.3	18.65	26.0	25.8	25.0	20.6	21.25	20.4
Percentage Composition of the Milk. Fat ...	4.51	4.56	3.64	3.11	4.97	5.43	3.79	4.31	4.78	3.63	4.06	3.71
Percentage Composition of the Milk. Solids other than Fat ...	9.05	9.10	9.06	8.87	8.75	8.79	9.17	9.17	9.26	9.17	9.12	9.25
Percentage Composition of the Milk. Total Solids ...	13.56	13.66	12.70	11.98	13.72	14.22	12.96	13.48	14.04	12.80	13.18	12.96
Actual weight of Fat, in lbs. ...	0.688	0.748	0.564	0.544	1.059	1.013	0.985	1.112	1.195	0.748	0.863	0.757
Actual weight of Solids other than Fat, in lbs. ...	1.38	1.49	1.40	1.55	1.86	1.64	2.38	2.37	2.32	1.89	1.94	1.89
Points—												
For weight of Milk (lbs.) ...	47.15			57.45			76.80			62.25		
For weight of Fat (lbs. × 20) ...	40.00			52.32			65.84			47.36		
For weight of Solids other than Fat (lbs. × 4) ...	17.08			20.20			28.28			22.88		
Total Points for Milk ...	104.23			129.97			170.92			132.49		
Deductions ...	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	104.23			129.97			170.92			132.49		
Points for time since Calving ...	12.0			4.2			—			—		
TOTAL POINTS GAINED ...	**116.23**			**134.17**			**170.92**			**132.49**		
Points gained for Milk per 1,000 lbs. live weight ...	78.60			86.47			134.69			97.78		
Points for time since Calving ...	12.0			4.2			—			—		
Total Points per 1,000 lbs. live weight ...	90.60			90.67			134.69			97.78		
Remarks and Awards ...	Highly Commended.			Highly Commended.			2nd Prize.			Highly Commended.		

CLASS 1.—DAIRY SHORTHORN COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	13			14			17			18		
Name	Fothering Moss Rose.			Lockinge Darlington 2nd.			Steppingley Clover's Gift 4th.			Wild Eyes Duchess 4th.		
Born	Nov. 26, 1928.			Dec. 28, 1927.			Sept. 28, 1927.			Dec. 26, 1928.		
Live weight, in lbs.	1,344			1,419			1,501			1,295		
Last Calved	Oct. 1.			Aug. 18.			Sept. 9.			Aug. 26.		
Days since Calving	20			64			42			56		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	27.2	25.6	25.5	7.0	12.9	11.0	27.4	30.0	27.3	21.1	22.4	20.0
Weight of Milk, 2nd day	25.7	24.8	25.9	16.0	13.9	16.0	28.1	27.6	24.8	18.5	21.5	18.4
Total	52.9	50.4	51.4	23.0	26.8	27.0	55.5	57.6	52.1	39.6	43.9	38.4
Average	26.45	25.2	25.7	11.5	13.4	13.5	27.75	28.8	26.05	19.8	21.95	19.2
Percentage Composition of the Milk. Fat	3.35	3.31	3.12	3.61	4.00	3.35	3.33	3.71	3.51	3.86	4.65	3.69
Percentage Composition of the Milk. Solids other than Fat	9.41	8.97	8.96	8.63	8.58	8.63	9.41	9.03	9.21	8.96	8.89	8.93
Percentage Composition of the Milk. Total Solids	12.76	12.28	12.08	12.24	12.58	11.98	12.74	12.74	12.72	12.82	13.54	12.62
Actual weight of Fat, in lbs.	0.886	0.834	0.802	0.415	0.536	0.452	0.924	1.068	0.914	0.764	1.021	0.708
Actual weight of Solids other than Fat, in lbs. ...	2.49	2.26	2.30	0.99	1.15	1.17	2.61	2.60	2.40	1.77	1.95	1.71
Points—												
For weight of Milk (lbs.)	77.35			38.40			82.60			60.95		
For weight of Fat (lbs. × 20)	50.44			28.06			58.12			49.86		
For weight of Solids other than Fat (lbs. × 4) ...	28.20			13.24			30.44			21.72		
Total Points for Milk	155.99			79.70			171.16			132.53		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	155.99			79.70			171.16			132.53		
Points for time since Calving ...	—			2.4			0.2			1.6		
TOTAL POINTS GAINED ...	**155.99**			**82.10**			**171.36**			**134.13**		
Points gained for Milk per 1,000 lbs. live weight ...	116.06			56.17			114.03			102.34		
Points for time since Calving	—			2.4			0.2			1.6		
Total Points per 1,000 lbs. live weight	116.06			58.57			114.23			103.94		
Remarks and Awards	Reserve.						1st Prize.			Highly Commended.		

CLASS 1.—DAIRY SHORTHORN COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

CLASS 2.—DAIRY SHORTHORN COW, ENTERED IN OR ACCEPTED FOR COATES' HERD BOOK. BORN AFTER 1ST AUGUST, 1930, AND WHICH HAS PRODUCED TWO OR MORE CALVES.

Number	20			22			23			24		
Name	Greattew Daphne.			Redrice Darling 4th.			Cherry Bloom 8th.			Thornby Foggathorpe 43rd.		
Born	June 25, 1930.			Jan. 14, 1932.			Jan. 27, 1931.			Sept. 27, 1931.		
Live weight, in lbs.	1,390			1,318			1,217			1,143		
Last Calved	Sept. 17.			Sept. 25.			Sept. 26.			Sept. 5.		
Days since Calving	34			26			25			46		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	25.6	25.5	24.3	20.2	19.4	17.7	18.8	15.4	14.4	22.1	21.1	19.7
Weight of Milk, 2nd day	25.1	25.2	23.8	20.5	19.6	19.5	16.6	17.4	17.8	20.4	18.4	18.1
Total	50.7	50.7	48.1	40.7	39.0	37.2	35.4	32.8	32.2	42.5	39.5	37.8
Average	25.35	25.35	24.05	20.35	19.5	18.6	17.7	16.4	16.1	21.25	19.75	18.9
Percentage Composition of the Milk. Fat	3.45	4.40	3.74	3.39	4.11	2.67	3.72	4.26	3.85	3.91	5.01	4.31
Percentage Composition of the Milk. Solids other than Fat	8.77	8.82	8.90	9.01	9.01	8.87	9.10	9.16	9.01	9.29	9.31	9.37
Percentage Composition of the Milk. Total Solids	12.22	13.22	12.64	12.40	13.12	11.54	12.82	13.42	12.86	13.20	14.32	13.68
Actual weight of Fat, in lbs.	0.875	1.115	0.899	0.690	0.801	0.497	0.658	0.699	0.620	0.831	0.989	0.815
Actual weight of Solids other than Fat, in lbs. ...	2.22	2.24	2.14	1.83	1.76	1.65	1.61	1.50	1.45	1.97	1.84	1.77
Points—												
For weight of Milk (lbs.)	74.75			58.45			50.20			59.90		
For weight of Fat (lbs. × 20)	57.78			39.76			39.54			52.70		
For weight of Solids other than Fat (lbs. × 4) ...	26.40			20.96			18.24			22.32		
Total Points for Milk	158.93			119.17			107.98			134.92		
Deductions	—			10.0			—			—		
TOTAL POINTS GAINED FOR MILK	158.93			109.17			107.98			134.92		
Points for time since Calving ...	—			—			—			0.6		
TOTAL POINTS GAINED ...	**158.93**			**109.17**			**107.98**			**135.52**		
Points gained for Milk per 1,000 lbs. live weight ...	114.34			82.83			88.73			118.04		
Points for time since Calving	—			—			—			0.6		
Total Points per 1,000 lbs. live weight	114.34			82.83			88.73			118.64		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			4th Prize.		

Class 2.—DAIRY SHORTHORN COW (Born after 1st August, 1930)—*Continued.*

Number Name	25 St. Clere Daffodil 13th.			27 St. Clere Ruby 6th.			28 St. Clere Eileen 3rd.			29 Aldenham Ringlet 10th.		
Born	Aug. 31, 1930.			Nov. 4, 1931.			Nov. 30, 1931.			Oct. 24, 1930.		
Live weight, in lbs.	1,464			1,267			1,182			1,318		
Last Calved	Sept. 27.			Oct. 4.			Oct. 3.			Aug. 29.		
Days since Calving	24			17			18			53		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even
Weight of Milk, 1st day	17.8	17.6	18.4	23.0	21.7	22.7	17.7	19.6	21.1	22.7	22.1	20.3
Weight of Milk, 2nd day	17.9	17.0	16.5	23.1	22.1	22.4	19.4	21.3	20.4	20.7	24.5	27.9
Total	35.7	34.6	34.9	46.1	43.8	45.1	37.1	40.9	41.5	43.4	46.6	48.2
Average	17.85	17.3	17.45	23.05	21.9	22.55	18.55	20.45	20.75	21.7	23.3	24.1
Percentage Composition of the Milk. Fat	3.31	3.78	4.15	3.78	3.78	3.78	3.22	3.80	4.82	2.26	2.67	2.91
Percentage Composition of the Milk. Solids other than Fat	9.17	9.06	9.07	9.04	8.84	9.06	9.16	8.96	9.30	8.96	8.91	9.17
Percentage Composition of the Milk. Total Solids	12.48	12.84	13.22	12.82	12.62	12.84	12.38	12.76	14.12	11.22	11.58	12.08
Actual weight of Fat, in lbs.	0.591	0.654	0.724	0.871	0.828	0.852	0.597	0.777	1.000	0.490	0.622	0.701
Actual weight of Solids other than Fat, in lbs.	1.64	1.57	1.58	2.08	1.94	2.04	1.70	1.83	1.93	1.94	2.08	2.21
Points—												
For weight of Milk (lbs.)	52.60			67.50			59.75			69.10		
For weight of Fat (lbs. × 20)	39.38			51.02			47.48			36.26		
For weight of Solids other than Fat (lbs. × 4)	19.16			24.24			21.84			24.92		
Total Points for Milk	111.14			142.76			129.07			130.28		
Deductions	—			—			—			30.0		
Total Points Gained for Milk	111.14			142.76			129.07			100.28		
Points for time since Calving	—			—			—			1.3		
TOTAL POINTS GAINED	**111.14**			**142.76**			**129.07**			**101.58**		
Points gained for Milk per 1,000 lbs. live weight	75.92			112.68			109.20			76.08		
Points for time since Calving	—			—			—			1.3		
Total Points per 1,000 lbs. live weight	75.92			112.68			109.20			77.38		
Remarks and Awards	Highly Commended.			2nd Prize.			Highly Commended.			Highly Commended.		

CLASS 2.—DAIRY SHORTHORN COW (BORN AFTER 1ST AUGUST, 1930)—*Continued.*

Number	30			31			32			33		
Name	Histon Wild Queen 25th.			Histon Barrington 12th.			Fothering Babette 2nd			Fothering Foggathorpe 2nd.		
Born	Oct. 29, 1930.			Jan. 22, 1932.			Oct. 4, 1930.			Apr. 21, 1932.		
Live weight, in lbs.	1,208			1,332			1,338			1,172		
Last Calved	Aug. 17.			Sept. 25.			Aug. 28.			Sept. 30.		
Days since Calving	65			26			54			21		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	14.3	20.3	16.5	16.9	19.4	17.8	22.8	20.2	20.6	22.4	19.8	18.6
Weight of Milk, 2nd day	19.0	17.7	18.4	18.7	17.7	17.4	20.6	19.3	18.6	18.9	18.7	19.2
Total	33.3	38.0	34.9	35.6	37.1	35.2	43.4	39.5	39.2	41.3	38.5	37.8
Average	16.65	19.0	17.45	17.8	18.55	17.6	21.7	19.75	19.6	20.65	19.25	18.9
Percentage Composition of the Milk. Fat	2.75	3.99	2.40	4.27	4.11	4.61	3.00	3.82	3.60	4.33	4.52	3.96
Percentage Composition of the Milk. Solids other than Fat	8.79	8.31	8.76	9.37	8.81	9.43	9.18	9.10	9.30	9.25	8.94	9.08
Percentage Composition of the Milk. Total Solids	11.54	12.30	11.16	13.64	12.92	14.04	12.18	12.92	12.90	13.58	13.46	13.04
Actual weight of Fat, in lbs.	0.458	0.758	0.419	0.760	0.762	0.811	0.651	0.754	0.706	0.894	0.870	0.748
Actual weight of Solids other than Fat, in lbs.	1.46	1.58	1.53	1.67	1.63	1.66	1.99	1.80	1.82	1.91	1.72	1.72
Points—												
For weight of Milk (lbs.)	53.10			53.95			61.05			58.80		
For weight of Fat (lbs. × 20)	32.70			46.66			42.22			50.24		
For weight of Solids other than Fat (lbs. × 4)	18.28			19.84			22.44			21.40		
Total Points for Milk	104.08			120.45			125.71			130.44		
Deductions	30.0			—			—			—		
TOTAL POINTS GAINED FOR MILK	74.08			120.45			125.71			130.44		
Points for time since Calving	2.5			—			1.4			—		
TOTAL POINTS GAINED	**76.58**			**120.45**			**127.11**			**130.44**		
Points gained for Milk per 1,000 lbs. live weight	61.32			90.43			93.95			111.30		
Points for time since Calving	2.5			—			1.4			—		
Total Points per 1,000 lbs. live weight	63.82			90.43			95.35			111.30		
Remarks and Awards				Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 2.—DAIRY SHORTHORN COW (BORN AFTER 1ST AUGUST, 1930)—*Continued.*

Number	34			35			37			38		
Name	Eaton Rosebud 7th.			Fair Foggathorpe.			Stokelycross Royal Flower 2nd.			Stokelycross Frolic 8th		
Born	Oct. 31, 1931.			Dec. 6, 1930.			Oct. 4, 1930.			Aug. 19, 1931.		
Live weight, in lbs.	1,111			1,160			1,478			1,317		
Last Calved	Sept. 13.			Sept. 28.			Sept. 15.			Aug. 20.		
Days since Calving	38			23			36			62		
	Morn.	Aft.	Even	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.2	19.9	20.0	18.4	18.9	18.8	21.5	19.9	22.7	20.2	17.7	21.0
Weight of Milk, 2nd day	20.5	19.2	21.0	18.3	18.9	18.9	21.9	18.4	19.6	19.7	18.5	17.4
Total	40.7	39.1	41.0	36.7	37.8	37.7	43.4	38.3	42.3	39.9	36.2	38.4
Average	20.35	19.55	20.5	18.35	18.9	18.85	21.7	19.15	21.15	19.95	18.1	19.2
Percentage Composition of the Milk. Fat	4.03	4.39	4.36	3.44	5.07	3.84	3.37	4.66	4.02	3.10	3.22	3.47
Percentage Composition of the Milk. Solids other than Fat	9.19	9.41	9.38	9.10	9.25	9.28	8.99	9.22	9.04	8.94	8.60	8.93
Percentage Composition of the Milk. Total Solids	13.22	13.80	13.74	12.54	14.32	13.12	12.36	13.88	13.06	12.04	11.82	12.40
Actual weight of Fat, in lbs.	0.820	0.858	0.894	0.631	0.958	0.724	0.731	0.892	0.850	0.618	0.583	0.666
Actual weight of Solids other than Fat, in lbs.	1.87	1.84	1.92	1.67	1.75	1.75	1.95	1.77	1.91	1.78	1.56	1.71
Points—												
For weight of Milk (lbs.)	60.40			56.10			62.00			57.25		
For weight of Fat (lbs. × 20)	51.44			46.26			49.46			37.34		
For weight of Solids other than Fat (lbs. × 4)	22.52			20.68			22.52			20.20		
Total Points for Milk	134.36			123.04			133.98			114.79		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	134.36			123.04			133.98			114.79		
Points for time since Calving	—			—			—			2.2		
TOTAL POINTS GAINED	**134.36**			**123.04**			**133.98**			**116.99**		
Points gained for Milk per 1,000 lbs. live weight	120.94			106.07			90.65			87.16		
Points for time since Calving	—			—			—			2.2		
Total Points per 1,000 lbs. live weight	120.94			106.07			90.65			89.36		
Remarks and Awards	Reserve.			Highly Commended			Highly Commended			Highly Commended		

Class 2.—DAIRY SHORTHORN COW (Born after 1st August, 1930)—*Continued.*

Number	39			40			44			45		
Name	Stokelycross Thorndale.			Hillend Pearl.			Greattew Lady Jane.			Greattew Foggathorpe 3rd.		
Born	Oct. 29, 1931.			Mar. 11, 1932.			Nov. 14, 1931.			Oct. 11, 1931.		
Live weight, in lbs.	1,458			1,276			1,140			1,098		
Last Calved	July 15.			Sept. 13.			Sept. 22.			Oct. 5.		
Days since Calving	98			38			29			16		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.5	16.4	15.9	17.8	15.4	16.2	21.0	19.7	21.5	21.3	19.7	20.9
Weight of Milk, 2nd day	14.8	14.6	14.0	15.4	14.7	17.0	20.4	20.3	22.1	19.6	18.0	21.5
Total	30.3	31.0	29.9	33.2	30.1	33.2	41.4	40.0	43.6	40.9	37.7	42.4
Average	15.15	15.5	14.95	16.6	15.05	16.6	20.7	20.0	21.8	20.45	18.85	21.2
Percentage Composition of the Milk. Fat	3.31	4.75	4.52	4.74	4.25	4.68	3.69	4.10	4.00	4.24	4.79	4.24
Percentage Composition of the Milk. Solids other than Fat	9.15	8.81	8.86	8.88	8.91	8.90	9.23	9.18	9.04	9.20	9.27	9.08
Percentage Composition of the Milk. Total Solids	12.46	13.56	13.38	13.62	13.16	13.58	12.92	13.28	13.04	13.44	14.06	13.32
Actual weight of Fat, in lbs.	0.501	0.736	0.676	0.787	0.640	0.777	0.764	0.820	0.872	0.867	0.903	0.899
Actual weight of Solids other than Fat, in lbs. ...	1.39	1.37	1.32	1.47	1.34	1.48	1.91	1.84	1.97	1.88	1.75	1.92
Points—												
For weight of Milk (lbs.)	45.60			48.25			62.50			60.50		
For weight of Fat (lbs. × 20)	38.26			44.08			49.12			53.38		
For weight of Solids other than Fat (lbs. × 4) ...	16.32			17.16			22.88			22.20		
Total Points for Milk	100.18			109.49			134.50			136.08		
Deductions	—			—			—			—		
Total Points Gained for Milk	100.18			109.49			134.50			136.08		
Points for time since Calving ...	5.8			—			—			—		
TOTAL POINTS GAINED ...	**105.98**			**109.49**			**134.50**			**136.08**		
Points gained for Milk per 1,000 lbs. live weight ...	68.71			85.81			117.98			123.93		
Points for time since Calving	5.8			—			—			—		
Total Points per 1,000 lbs. live weight	74.51			85.81			117.98			123.93		
Remarks and Awards	Highly Commended.			Highly Commended.			5th Prize.			3rd Prize.		

Class 2.—DAIRY SHORTHORN COW (Born after 1st August, 1930)—*Continued.*

Number	46			47			49			50		
Name	Ockley Ringlet 4th.			Claydon Wild Queen 20th.			Revels Graceful Lady.			Bennington Duchess.		
Born	Aug. 30, 1930.			Dec. 19, 1930.			Aug. 29, 1931.			Feb. 15, 1932.		
Live weight, in lbs.	1,278			1,226			1,320			1,268		
Last Calved	Sept. 21.			Sept. 6.			Sept. 16.			Oct. 5.		
Days since Calving	30			45			35			16		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.4	17.1	19.5	18.9	21.5	19.8	24.9	24.0	25.0	16.2	16.1	14.8
Weight of Milk, 2nd day	17.9	19.4	17.3	19.1	18.9	18.3	23.6	25.0	23.1	17.1	18.9	16.7
Total	38.3	36.5	36.8	38.0	40.4	38.1	48.5	49.0	48.1	33.3	35.0	31.5
Average	19.15	18.25	18.4	19.0	20.2	19.05	24.25	24.5	24.05	16.65	17.5	15.75
Percentage Composition of the Milk. Fat	4.25	3.70	4.17	3.89	4.92	3.35	3.97	4.07	3.69	5.12	4.57	4.57
Solids other than Fat	9.29	8.98	9.01	9.61	9.22	9.09	9.63	9.77	9.45	9.98	9.85	9.89
Total Solids	13.54	12.68	13.24	13.50	14.14	12.44	13.60	13.84	13.14	15.10	14.42	14.46
Actual weight of Fat, in lbs.	0.814	0.675	0.767	0.739	0.994	0.638	0.963	0.997	0.887	0.852	0.800	0.720
Actual weight of Solids other than Fat, in lbs. ...	1.78	1.64	1.67	1.83	1.86	1.73	2.34	2.39	2.27	1.66	1.72	1.56
Points—												
For weight of Milk (lbs.)	55.80			58.25			72.80			49.90		
For weight of Fat (lbs. × 20)	45.12			47.42			56.94			47.40		
For weight of Solids other than Fat (lbs. × 4) ...	20.36			21.68			28.00			19.76		
Total Points for Milk	121.28			127.35			157.74			117.06		
Deductions	—			—			—			—		
Total Points Gained for Milk	121.28			127.35			157.74			117.06		
Points for time since Calving ...	—			0.5			—			—		
TOTAL POINTS GAINED ...	**121.28**			**127.85**			**157.74**			**117.06**		
Points gained for Milk per 1,000 lbs. live weight ...	94.90			103.87			119.50			92.32		
Points for time since Calving	—			0.5			—			—		
Total Points per 1,000 lbs. live weight	94.90			104.37			119.50			92.32		
Remarks and Awards	Highly Commended.			Highly Commended.			1st Prize.			Highly Commended.		

CLASS 3.—DAIRY SHORTHORN HEIFER, ENTERED IN OR ELIGIBLE FOR COATES' HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF.

Number	53			54			57			58		
Name	Aldenham Waterloo Sunset.			Aldenham Barrington 10th.			Histon Lady Waterloo 3rd.			Lockinge Lady Rotha.		
Born	June 3, 1933.			Feb. 6, 1933.			Aug. 11, 1932.			Sept. 9, 1932.		
Live weight, in lbs.	1,036			1,108			1,232			1,237		
Last Calved	Oct. 4.			Oct. 3.			Aug. 6.			Sept. 30.		
Days since Calving	17			18			76			21		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	8.6	9.0	9.1	10.0	10.5	10.9	13.0	12.9	12.5	11.5	13.5	13.4
Weight of Milk, 2nd day	8.6	8.3	8.8	11.0	10.9	10.7	12.4	13.2	12.0	10.3	15.0	13.4
Total	17.2	17.3	17.9	21.0	21.4	21.6	25.4	26.1	24.5	21.8	28.5	26.8
Average	8.6	8.65	8.95	10.5	10.7	10.8	12.7	13.05	12.25	10.9	14.25	13.4
Percentage Composition of the Milk. Fat	3.95	4.34	4.88	4.32	4.76	4.26	3.62	4.17	4.46	3.00	4.30	4.52
Percentage Composition of the Milk. Solids other than Fat	9.75	9.82	9.54	9.70	9.06	9.62	9.16	9.39	9.38	9.56	9.42	9.34
Percentage Composition of the Milk. Total Solids	13.70	14.16	14.42	14.02	13.82	13.88	12.78	13.56	13.84	12.56	13.72	13.86
Actual weight of Fat, in lbs.	0.340	0.375	0.437	0.454	0.509	0.460	0.460	0.544	0.546	0.327	0.613	0.606
Actual weight of Solids other than Fat, in lbs. ...	0.84	0.85	0.85	1.02	0.97	1.04	1.16	1.23	1.15	1.04	1.34	1.25
Points—												
For weight of Milk (lbs.)	26.20			32.00			38.00			38.55		
For weight of Fat (lbs. × 20)	23.04			28.46			31.00			30.92		
For weight of Solids other than Fat (lbs. × 4) ...	10.16			12.12			14.16			14.52		
Total Points for Milk	59.40			72.58			83.16			83.99		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	59.40			72.58			83.16			83.99		
Points for time since Calving ...	—			—			3.6			—		
TOTAL POINTS GAINED ...	**59.40**			**72.58**			**86.76**			**83.99**		
Points gained for Milk per 1,000 lbs. live weight ...	57.34			65.51			67.50			67.90		
Points for time since Calving	—			—			3.6			—		
Total Points per 1,000 lbs. live weight	57.34			65.51			71.10			67.90		
Remarks and Awards				Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 3.—DAIRY SHORTHORN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	60			61			62			63		
Name	Copsale Wild Eyes 17th.			Hillend Rosette 3rd.			Greattew Ruby Clare.			Revels Tulip 2nd.		
Born	Dec. 12, 1932.			Jan. 24, 1933.			Aug. 8, 1932.			Nov. 1, 1932.		
Live weight, in lbs.	942			1,181			1,108			1,117		
Last Calved	Sept. 26.			Oct. 5.			Aug. 30.			Sept. 1.		
Days since Calving	25			16			52			50		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.6	16.0	14.5	12.9	13.0	12.9	14.2	14.4	14.3	13.7	15.3	14.6
Weight of Milk, 2nd day	14.4	14.6	15.3	12.3	11.8	12.3	13.3	14.0	13.3	14.1	13.7	15.4
Total	33.0	30.6	29.8	25.2	24.8	25.2	27.5	28.4	27.6	27.8	29.0	30.0
Average	16.5	15.3	14.9	12.6	12.4	12.6	13.75	14.2	13.8	13.9	14.5	15.0
Percentage Composition of the Milk. Fat	4.88	4.90	4.23	4.35	4.12	4.17	3.73	4.13	3.79	3.07	3.18	3.23
Percentage Composition of the Milk. Solids other than Fat	8.84	8.96	9.33	9.29	9.26	9.25	9.13	9.31	9.17	9.47	9.38	9.53
Percentage Composition of the Milk. Total Solids	13.72	13.86	13.56	13.64	13.38	13.42	12.86	13.44	12.96	12.54	12.56	12.76
Actual weight of Fat, in lbs.	0.805	0.750	0.630	0.548	0.511	0.525	0.513	0.586	0.523	0.427	0.461	0.485
Actual weight of Solids other than Fat, in lbs. ...	1.46	1.37	1.39	1.17	1.15	1.17	1.26	1.32	1.27	1.32	1.36	1.43
Points—												
For weight of Milk (lbs.)	46.70			37.60			41.75			43.40		
For weight of Fat (lbs. × 20)	43.70			31.68			32.44			27.46		
For weight of Solids other than Fat (lbs. × 4) ...	16.88			13.96			15.40			16.44		
Total Points for Milk	107.28			83.24			89.59			87.30		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	107.28			83.24			89.59			87.30		
Points for time since Calving ...	—			—			1.2			1.0		
TOTAL POINTS GAINED ...	**107.28**			**83.24**			**90.79**			**88.30**		
Points gained for Milk per 1,000 lbs. live weight	113.89			70.48			80.86			78.16		
Points for time since Calving	—			—			1.2			1.0		
Total Points per 1,000 lbs. live weight	113.89			70.48			82.06			79.16		
Remarks and Awards	1st Prize.			Highly Commended.			3rd Prize.			Reserve.		

CLASS 3.—DAIRY SHORTHORN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

CLASS 4.—DAIRY SHORTHORN COW, NOT ELIGIBLE FOR CLASSES 1 OR 2. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD DURING A LACTATION PERIOD OF 45 WEEKS, RECORDED BY A RECOGNISED MILK RECORDING SOCIETY.

Number	64			65			66			69		
Name	Revels Barrington Beauty.			Daisy 5th.			Cantab Janet 3rd.			St. Clere Colleen 2nd.		
Born	Feb. 8, 1933.			Nov. 18, 1928.			July 30, 1930.			Jan. 11, 1930.		
Live weight, in lbs.	932			1,437			1,387			1,626		
Last Calved	Aug. 17.			Sept. 21.			Sept. 17.			Aug. 14.		
Days since Calving	65			31			34			68		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.1	15.4	15.0	22.1	18.2	16.3	24.8	22.9	23.8	19.5	19.4	19.5
Weight of Milk, 2nd day	14.8	14.4	15.3	20.2	22.8	22.5	22.9	23.7	23.2	19.7	18.7	17.6
Total	29.9	29.8	30.3	42.3	41.0	38.8	47.7	46.6	47.0	39.2	38.1	37.1
Average	14.95	14.9	15.15	21.15	20.5	19.4	23.85	23.3	23.5	19.6	19.05	18.55
Percentage Composition of the Milk. Fat	4.21	4.90	4.85	3.16	2.67	2.41	4.32	4.25	4.06	3.49	4.70	4.60
Percentage Composition of the Milk. Solids other than Fat	9.43	9.40	9.33	9.24	9.17	9.09	9.24	9.13	8.96	9.31	9.18	9.34
Percentage Composition of the Milk. Total Solids	13.64	14.30	14.18	12.40	11.84	11.50	13.56	13.88	13.02	12.80	13.88	13.94
Actual weight of Fat, in lbs.	0.629	0.730	0.735	0.668	0.547	0.468	1.030	0.990	0.954	0.684	0.895	0.853
Actual weight of Solids other than Fat, in lbs.	1.41	1.40	1.41	1.95	1.88	1.76	2.20	2.13	2.11	1.82	1.75	1.73
Points—												
For weight of Milk (lbs.)	45.00			61.05			70.65			57.20		
For weight of Fat (lbs. × 20)	41.88			33.66			59.48			48.64		
For weight of Solids other than Fat (lbs. × 4)	16.88			22.36			25.76			21.20		
Total Points for Milk	103.76			117.07			155.89			127.04		
Deductions	—			20.0			—			—		
TOTAL POINTS GAINED FOR MILK	103.76			97.07			155.89			127.04		
Points for time since Calving	2.5			—			—			2.8		
TOTAL POINTS GAINED	**106.26**			**97.07**			**155.89**			**129.84**		
Points gained for Milk per 1,000 lbs. live weight	111.33			67.55			112.39			78.13		
Points for time since Calving	2.5			—			—			2.8		
Total Points per 1,000 lbs. live weight	113.83			67.55			112.39			80.93		
Remarks and Awards	2nd Prize.						1st Prize.			3rd Prize.		

CLASS 4.—DAIRY SHORTHORN COW (NOT ELIGIBLE FOR CLASSES 1 OR 2)—*Continued.*

Number	70			74			75		
Name	Whittingslow Onyx.			Garnet's Jewel.			Waring's Milkmaid.		
Born	Jan. 24, 1929.			July 21, 1931.			1932.		
Live weight, in lbs.	1,260			1,340			1,198		
Last Calved	Sept. 28.			Oct. 4.			Oct. 4.		
Days since Calving	23			17			17		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	24.0	23.2	21.5	17.9	18.9	17.6	17.4	18.0	17.7
Weight of Milk, 2nd day	19.8	23.0	20.4	18.8	18.9	17.9	17.5	15.9	16.8
Total	43.8	46.2	41.9	36.7	37.8	35.5	34.9	33.9	34.5
Average	21.9	23.1	20.95	18.35	18.9	17.75	17.45	16.95	17.25
Percentage Composition of the Milk. Fat	3.44	3.80	3.44	4.13	4.26	4.27	4.02	4.96	4.66
Percentage Composition of the Milk. Solids other than Fat	9.10	8.72	8.84	9.71	9.36	9.57	9.22	8.82	9.08
Percentage Composition of the Milk. Total Solids	12.54	12.52	12.28	13.84	13.62	13.84	13.24	13.78	13.74
Actual weight of Fat, in lbs.	0.753	0.878	0.721	0.758	0.805	0.758	0.701	0.841	0.804
Actual weight of Solids other than Fat, in lbs.	1.99	2.01	1.85	1.78	1.77	1.70	1.61	1.49	1.57
Points—									
For weight of Milk (lbs.)	65.95			55.00			51.65		
For weight of Fat (lbs. × 20)	47.04			46.42			46.92		
For weight of Solids other than Fat (lbs. × 4)	23.40			21.00			18.68		
Total Points for Milk	136.39			122.42			117.25		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	136.39			122.42			117.25		
Points for time since Calving	—			—			—		
TOTAL POINTS GAINED	**136.39**			**122.42**			**117.25**		
Points gained for Milk per 1,000 lbs. live weight	108.25			91.36			97.87		
Points for time since Calving	—			—			—		
Total Points per 1,000 lbs. live weight	108.25			91.36			97.87		
Remarks and Awards	2nd Prize.			Reserve.			Highly Commended.		

CLASS 5.—DAIRY SHORTHORN HEIFER. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF. NOT ELIGIBLE FOR CLASS 3.

Number	76			77			78			79		
Name	Cantab Janet 4th.			Topsy.			Fuchsia.			Prudence.		
Born	Dec. 4, 1932.			Jan. 2, 1933.			unknown.			unknown.		
Live weight, in lbs.	1,099			1,122			1,093			1,135		
Last Calved	Sept. 20.			July 21.			Sept. 27.			Sept. 20.		
Days since Calving	31			92			24			31		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.6	16.4	16.0	10.7	10.3	10.3	16.1	15.9	15.8	15.9	15.4	15.4
Weight of Milk, 2nd day	16.4	16.2	16.1	10.5	10.3	10.2	14.1	16.6	16.5	15.8	14.6	15.4
Total	33.0	32.6	32.1	21.2	20.6	20.5	30.2	32.5	32.3	31.7	30.0	30.8
Average	16.5	16.3	16.05	10.6	10.3	10.25	15.1	16.25	16.15	15.85	15.0	15.4
Percentage Composition of the Milk. Fat	4.42	4.01	5.80	3.22	3.36	3.41	3.53	3.85	3.55	4.47	4.52	4.80
Percentage Composition of the Milk. Solids other than Fat	9.54	9.31	9.54	9.06	8.86	9.29	9.01	8.87	9.25	9.55	9.44	8.64
Percentage Composition of the Milk. Total Solids	13.96	13.32	15.34	12.28	12.22	12.70	12.54	12.72	12.80	14.02	13.96	13.44
Actual weight of Fat, in lbs.	0.729	0.654	0.931	0.341	0.346	0.350	0.533	0.626	0.573	0.708	0.678	0.739
Actual weight of Solids other than Fat, in lbs. ...	1.57	1.52	1.53	0.96	0.91	0.95	1.36	1.44	1.49	1.51	1.42	1.33
Points—												
For weight of Milk (lbs.)	48.85			31.15			47.50			46.25		
For weight of Fat (lbs. × 20)	46.28			20.74			34.64			42.50		
For weight of Solids other than Fat (lbs. × 4) ...	18.48			11.28			17.16			17.04		
Total Points for Milk ... , ...	113.61			63.17			99.30			105.79		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	113.61			63.17			99.30			105.79		
Points for time since Calving ...	—			5.2			—			—		
TOTAL POINTS GAINED ...	**113.61**			**68.37**			**99.30**			**105.79**		
Points gained for Milk per 1,000 lbs. live weight ...	103.38			56.30			90.85			93.21		
Points for time since Calving	—			5.2			—			—		
Total Points per 1,000 lbs. live weight	103.38			61.50			90.85			93.21		
Remarks and Awards	1st Prize.						Reserve.			2nd Prize.		

CLASS 5.—DAIRY SHORTHORN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number ...	80			81			82		
Name ...	Patricia.			Pretty Lass.			Bucks Lass.		
Born ...	unknown.			unknown.			unknown.		
Live weight, in lbs. ...	1,013			998			1,227		
Last Calved ...	Sept. 25.			Sept. 16.			Sept. 24.		
Days since Calving ...	26			35			27		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	13.3	12.0	12.9	16.5	16.2	16.6	10.4	11.7	11.7
Weight of Milk, 2nd day ...	13.1	13.8	12.1	16.5	16.5	18.6	10.9	11.6	11.6
Total ...	26.4	25.8	25.0	33.0	32.7	35.2	21.3	23.3	23.3
Average ...	13.2	12.9	12.5	16.5	16.35	17.6	10.65	11.65	11.65
Percentage Composition of the Milk. Fat ...	3.32	3.17	3.55	3.12	3.25	3.63	2.38	3.00	3.02
Percentage Composition of the Milk. Solids other than Fat ...	9.44	9.59	9.39	9.28	9.21	9.43	9.38	9.28	9.28
Percentage Composition of the Milk. Total Solids ...	12.76	12.76	12.94	12.40	12.46	13.06	11.76	12.28	12.30
Actual weight of Fat, in lbs. ...	0.438	0.409	0.444	0.515	0.531	0.639	0.253	0.350	0.352
Actual weight of Solids other than Fat, in lbs. ...	1.25	1.24	1.17	1.53	1.51	1.66	1.00	1.08	1.08
Points—									
For weight of Milk (lbs.) ...	38.60			50.45			33.95		
For weight of Fat (lbs. × 20) ...	25.82			33.70			19.10		
For weight of Solids other than Fat (lbs. × 4) ...	14.64			18.80			12.64		
Total Points for Milk ...	79.06			102.95			65.69		
Deductions ...	—			—			10.0		
TOTAL POINTS GAINED FOR MILK	79.06			102.95			55.69		
Points for time since Calving ...	—			—			—		
TOTAL POINTS GAINED ...	**79.06**			**102.95**			**55.69**		
Points gained for Milk per 1,000 lbs. live weight ...	78.05			103.16			45.39		
Points for time since Calving ...	—			—			—		
Total Points per 1,000 lbs. live weight ...	78.05			103.16			45.39		
Remarks and Awards ...	Highly Commended.			3rd Prize.					

Class 5.—DAIRY SHORTHORN HEIFER (Born on or after 1st August, 1932)—*Continued.*

Number	83			84		
Name	Histon Joyce.			Revels Pet 4th.		
Born	unknown.			Oct. 5, 1932.		
Live weight, in lbs.	1,257			1,129		
Last Calved	Aug. 6.			Aug. 27.		
Days since Calving	76			55		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.2	13.2	11.6	17.7	17.6	18.9
Weight of Milk, 2nd day	13.2	12.3	11.3	16.3	17.4	17.0
Total	29.4	25.5	22.9	34.0	35.0	35.9
Average	14.7	12.75	11.45	17.0	17.5	17.95
Percentage Composition of the Milk. Fat	3.43	4.01	3.52	2.72	2.82	3.10
Percentage Composition of the Milk. Solids other than Fat	9.19	9.13	9.24	9.08	9.20	9.36
Percentage Composition of the Milk. Total Solids	12.62	13.14	12.76	11.80	12.02	12.46
Actual weight of Fat, in lbs.	0.504	0.511	0.403	0.462	0.494	0.556
Actual weight of Solids other than Fat, in lbs. ...	1.35	1.16	1.06	1.54	1.61	1.68
Points—						
For weight of Milk (lbs.)	38.90			52.45		
For weight of Fat (lbs. × 20)	28.36			30.24		
For weight of Solids other than Fat (lbs. × 4) ...	14.28			19.32		
Total Points for Milk	81.54			102.01		
Deductions	—			20.00		
Total Points Gained for Milk	81.54			82.01		
Points for time since Calving ...	3.6			1.5		
TOTAL POINTS GAINED ...	**85.14**			**83.51**		
Points gained for Milk per 1,000 lbs. live weight ...	64.87			72.64		
Points for time since Calving	3.6			1.5		
Total Points per 1,000 lbs. live weight	68.47			74.14		
Remarks and Awards	Highly Commended.			Highly Commended.		

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 7,000 LBS. AT FIVE YEARS OLD, OR OVER, OR 5,250 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	86			87			88			90		
Name	Bendish Nancy 25th.			Histon Dairymaid 65th.			Histon Fanny 6th.			Histon Duchess 20th.		
Born	Dec. 22, 1931.			Aug. 28, 1930.			Jan. 22, 1928.			Aug. 28, 1930.		
Live weight, in lbs.	1,313			1,235			1,462			1,348		
Last Calved	Sept. 12.			Sept. 19.			Sept. 22.			Sept. 15.		
Days since Calving	39			32			29			36		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.2	20.6	17.5	22.8	23.4	21.7	21.6	21.9	21.0	22.6	24.2	23.8
Weight of Milk, 2nd day	17.8	21.3	20.6	22.8	22.9	20.5	20.5	20.8	20.2	24.7	23.9	24.5
Total	38.0	41.9	38.1	45.6	46.3	42.2	42.1	42.7	41.2	47.3	48.1	48.3
Average	19.0	20.95	19.05	22.8	23.15	21.1	21.05	21.35	20.6	23.65	24.05	24.15
Percentage Composition of the Milk. Fat	3.80	4.63	2.19	4.33	4.12	3.85	5.10	5.19	3.84	3.64	3.56	3.13
Solids other than Fat	8.62	8.59	9.15	9.37	9.06	9.75	9.24	9.25	9.48	9.34	9.02	9.35
Total Solids	12.42	13.22	11.34	13.70	13.18	13.60	14.34	14.44	13.32	12.98	12.58	12.48
Actual weight of Fat, in lbs.	0.722	0.970	0.417	0.987	0.954	0.812	1.074	1.108	0.791	0.861	0.856	0.756
Actual weight of Solids other than Fat, in lbs. ...	1.64	1.80	1.74	2.14	2.10	2.06	1.95	1.97	1.95	2.21	2.17	2.26
Points—												
For weight of Milk (lbs.)	59.00			67.05			63.00			71.85		
For weight of Fat (lbs. × 20)	42.18			55.06			59.46			49.46		
For weight of Solids other than Fat (lbs. × 4) ...	20.72			25.20			23.48			26.56		
Total Points for Milk	121.90			147.31			145.94			147.87		
Deductions	10.00			—			—			—		
TOTAL POINTS GAINED FOR MILK	111.90			147.31			145.94			147.87		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**111.90**			**147.31**			**145.94**			**147.87**		
Points gained for Milk per 1,000 lbs. live weight ...	85.22			119.28			99.82			109.70		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	85.22			119.28			99.82			109.70		
Remarks and Awards	Highly Commended.			2nd Prize.			Reserve.			1st Prize.		

Class 6.—LINCOLNSHIRE RED SHORTHORN COW—*Continued.*

Number	91			92			93			94		
Name	Burton Hempy 13th.			Bendish Poppy 9th.			Burton Suttie 3rd.			Burton Cherry 15th.		
Born	Sept. 28, 1925.			Feb. 28, 1925.			June 8, 1931.			Aug. 26, 1930.		
Live weight, in lbs.	1,610			1,488			1,208			1,576		
Last Calved	Oct. 1.			July 3.			Sept. 1.			Aug. 31.		
Days since Calving	20			110			50			51		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.9	21.6	21.7	15.6	16.5	16.2	19.6	20.0	16.8	19.0	18.2	17.5
Weight of Milk, 2nd day	19.6	22.6	21.3	16.7	13.7	14.4	17.0	15.7	16.8	17.0	16.5	17.5
Total	41.5	44.2	43.0	32.3	30.2	30.6	36.6	35.7	33.6	36.0	34.7	35.0
Average	20.75	22.1	21.5	16.15	15.1	15.3	18.3	17.85	16.8	18.0	17.35	17.5
Percentage Composition of the Milk. Fat	3.96	4.72	4.74	3.39	3.70	3.34	4.50	4.08	3.81	3.48	3.70	2.87
Percentage Composition of the Milk. Solids other than Fat	9.68	9.02	9.26	9.29	8.70	9.20	9.00	9.08	9.07	8.94	9.18	9.11
Percentage Composition of the Milk. Total Solids	13.64	13.74	14.00	12.68	12.40	12.54	13.50	13.16	12.88	12.42	12.88	11.98
Actual weight of Fat, in lbs.	0.822	1.043	1.019	0.547	0.559	0.511	0.824	0.728	0.640	0.626	0.642	0.502
Actual weight of Solids other than Fat, in lbs.	2.01	1.99	1.99	1.50	1.31	1.41	1.65	1.62	1.52	1.61	1.59	1.59
Points—												
For weight of Milk (lbs.)	64.35			46.55			52.95			52.85		
For weight of Fat (lbs. × 20)	57.68			32.34			43.84			35.40		
For weight of Solids other than Fat (lbs. × 4)	23.96			16.88			19.16			19.16		
Total Points for Milk	145.99			95.77			115.95			107.41		
Deductions	—			—			—			10.00		
TOTAL POINTS GAINED FOR MILK	145.99			95.77			115.95			97.41		
Points for time since Calving	—			7.0			1.0			1.1		
TOTAL POINTS GAINED	**145.99**			**102.77**			**116.95**			**98.51**		
Points gained for Milk per 1,000 lbs. live weight	90.68			64.36			95.99			61.81		
Points for time since Calving	—			7.0			1.0			1.1		
Total Points per 1,000 lbs. live weight	90.68			71.36			96.99			62.91		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.					

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COW—*Continued.*

Number	96			97			98		
Name	Burton Ruby Spot 23rd.			Lobthorpe Princess.			Curlieu Lassie 4th.		
Born	Sept. 7, 1926.			Feb., 1929.			April 1, 1926.		
Live weight, in lbs.	1,300			1,637			1,286		
Last Calved	Sept. 29.			May 6.			Sept. 26.		
Days since Calving	22			168			25		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.6	21.9	22.0	14.0	13.7	11.4	18.3	18.9	18.6
Weight of Milk, 2nd day	20.6	22.2	21.0	13.8	13.0	13.0	18.7	19.3	18.7
Total	42.2	44.1	43.0	27.8	26.7	24.4	37.0	38.2	37.3
Average	21.1	22.05	21.5	13.9	13.35	12.2	18.5	19.1	18.65
Percentage Composition of the Milk. Fat	3.00	3.69	3.06	4.12	5.57	3.10	4.18	4.10	3.37
Percentage Composition of the Milk. Solids other than Fat	8.46	8.79	8.64	8.44	8.23	8.68	8.68	8.90	8.73
Percentage Composition of the Milk. Total Solids	11.46	12.48	11.70	12.56	13.80	11.78	12.86	13.00	12.10
Actual weight of Fat, in lbs.	0.633	0.814	0.658	0.573	0.744	0.378	0.773	0.783	0.629
Actual weight of Solids other than Fat, in lbs.	1.79	1.94	1.86	1.17	1.10	1.06	1.61	1.70	1.63
Points—									
For weight of Milk (lbs.)	64.65			39.45			56.25		
For weight of Fat (lbs. × 20)	42.10			33.90			43.70		
For weight of Solids other than Fat (lbs. × 4)	22.36			13.32			19.76		
Total Points for Milk	129.11			86.67			119.71		
Deductions	10.00			20.00			—		
TOTAL POINTS GAINED FOR MILK	119.11			66.67			119.71		
Points for time since Calving	—			12.0			—		
TOTAL POINTS GAINED	**119.11**			**78.67**			**119.71**		
Points gained for Milk per 1,000 lbs. live weight	91.62			40.73			93.09		
Points for time since Calving	—			12.0			—		
Total Points per 1,000 lbs. live weight	91.62			52.73			93.09		
Remarks and Awards	Highly Commended.						Highly Commended.		

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF.

Number	99			100			101			102		
Name	Bendish Bess 18th.			Wratting Sunbeam 3rd.			Wratting Cherry 3rd.			Burton Cynthia 5th.		
Born	Oct. 1, 1932.			Nov. 12, 1932.			Jan. 3, 1933.			Oct. 30, 1932.		
Live weight, in lbs.	1,116			1,335			1,020			1,151		
Last Calved	Sept. 21.			Sept. 20.			Oct. 1.			Sept. 8.		
Days since Calving	30			31			20			43		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.2	15.9	15.1	15.7	15.8	15.5	19.4	19.9	19.9	20.4	18.4	18.4
Weight of Milk, 2nd day	15.7	16.8	17.6	15.1	15.7	14.9	20.1	19.6	20.6	18.0	17.3	17.6
Total	31.9	32.7	32.7	30.8	31.5	30.4	39.5	39.5	40.5	38.4	35.7	36.0
Average	15.95	16.35	16.35	15.4	15.75	15.2	19.75	19.75	20.25	19.2	17.85	18.0
Percentage Composition of the Milk. Fat	5.36	4.70	3.40	3.15	3.13	2.92	3.63	4.20	3.48	4.98	3.62	3.35
Percentage Composition of the Milk. Solids other than Fat	9.04	9.22	9.24	9.15	9.39	9.12	8.97	8.78	9.20	8.86	8.94	9.21
Percentage Composition of the Milk. Total Solids	14.40	13.92	12.64	12.30	12.52	12.04	12.60	12.98	12.68	13.84	12.56	12.56
Actual weight of Fat, in lbs.	0.855	0.768	0.556	0.485	0.493	0.444	0.717	0.830	0.705	0.956	0.646	0.603
Actual weight of Solids other than Fat, in lbs. ...	1.44	1.51	1.51	1.41	1.48	1.39	1.77	1.73	1.86	1.70	1.60	1.66
Points—												
For weight of Milk (lbs.)	48.65			46.35			59.75			55.05		
For weight of Fat (lbs. × 20)	43.58			28.44			45.04			44.10		
For weight of Solids other than Fat (lbs. × 4) ...	17.84			17.12			21.44			19.84		
Total Points for Milk	110.07			91.91			126.23			118.99		
Deductions	—			10.00			—			—		
TOTAL POINTS GAINED FOR MILK	110.07			81.91			126.23			118.99		
Points for time since Calving ...	—			—			—			0.3		
TOTAL POINTS GAINED ...	**110.07**			**81.91**			**126.23**			**119.29**		
Points gained for Milk per 1,000 lbs. live weight ...	98.63			61.36			123.75			103.38		
Points for time since Calving	—			—			—			0.3		
Total Points per 1,000 lbs. live weight	98.63			61.36			123.75			103.68		
Remarks and Awards	3rd Prize.			Highly Commended.			1st Prize.			2nd Prize.		

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	103			104			105			106		
Name	Burton Young Cherry 25th.			Burton Vic 28th.			Scothern Manor Normal 5th.			Scothern Manor Amy 17th.		
Born	Jan. 1, 1933.			Oct. 3, 1932.			Feb. 20, 1933.			Mar. 29, 1933.		
Live weight, in lbs.	1,081			1,167			1,272			1,158		
Last Calved	Sept. 21.			Oct. 3.			Sept. 5.			Sept. 22.		
Days since Calving	30			18			46			29		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.4	17.2	18.2	11.8	10.6	11.2	12.8	13.3	12.9	14.6	14.0	13.4
Weight of Milk, 2nd day	17.5	17.8	16.2	11.5	12.1	11.3	13.0	12.4	12.6	14.3	14.9	14.0
Total	37.9	35.0	34.4	23.3	22.7	22.5	25.8	25.7	25.5	28.9	28.9	27.4
Average	18.95	17.5	17.2	11.65	11.35	11.25	12.9	12.85	12.75	14.45	14.45	13.7
Percentage Composition of the Milk. Fat	3.44	3.02	2.74	4.81	4.24	3.00	4.07	4.98	3.80	3.69	3.83	2.88
Percentage Composition of the Milk. Solids other than Fat	8.84	9.12	8.86	9.53	10.00	9.45	9.53	9.76	9.60	9.45	9.37	9.44
Percentage Composition of the Milk. Total Solids	12.28	12.14	11.60	14.34	14.24	12.45	13.60	14.74	13.40	13.14	13.20	12.32
Actual weight of Fat, in lbs.	0.652	0.529	0.471	0.560	0.481	0.338	0.525	0.640	0.485	0.533	0.553	0.395
Actual weight of Solids other than Fat, in lbs. ...	1.68	1.60	1.52	1.11	1.14	1.06	1.23	1.25	1.22	1.37	1.35	1.29
Points—												
For weight of Milk (lbs.)	53.65			34.25			38.50			42.60		
For weight of Fat (lbs. × 20)	33.04			27.58			33.00			29.62		
For weight of Solids other than Fat (lbs. × 4) ...	19.20			13.24			14.80			16.04		
Total Points for Milk	105.89			75.07			86.30			88.26		
Deductions	10.00			—			—			10.00		
TOTAL POINTS GAINED FOR MILK	95.89			75.07			86.30			78.26		
Points for time since Calving ...	—			—			0.6			—		
TOTAL POINTS GAINED ...	**95.89**			**75.07**			**86.90**			**78.26**		
Points gained for Milk per 1,000 lbs. live weight ...	88.70			64.33			67.85			67.58		
Points for time since Calving	—			—			0.6			—		
Total Points per 1,000 lbs. live weight	88.70			64.33			68.45			67.58		
Remarks and Awards	Reserve.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 8.—BRITISH FRIESIAN COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK OR THE SUPPLEMENTARY REGISTER. BORN ON OR PREVIOUS TO 1ST AUGUST, 1930. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number ...	111			112			114			115		
Name ...	Chellaston Eva.			Herrington Keg O'Milk.			Abingworth Dainty.			Marshgreen Kathleen.		
Born ...	Mar. 26, 1930.			July 19, 1930.			Aug. 2, 1928.			Sept. 6, 1929.		
Live weight, in lbs. ...	1,332			1,578			1,322			1,395		
Last Calved ...	Sept. 18.			Oct. 3.			Sept. 27.			Sept. 20.		
Days since Calving ...	33			18			24			31		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	23.1	22.0	21.4	26.3	26.5	26.6	27.5	27.2	28.1	29.8	27.2	29.5
Weight of Milk, 2nd day ...	22.3	22.6	21.7	27.0	29.0	26.0	27.5	30.2	26.6	28.9	27.9	32.5
Total ...	45.4	44.6	43.1	53.3	55.5	52.6	55.0	57.4	54.7	58.7	55.1	62.0
Average ...	22.7	22.3	21.55	26.65	27.75	26.3	27.5	28.7	27.35	29.35	27.55	31.0
Percentage Composition of the Milk. Fat ...	3.26	3.65	2.77	3.67	3.55	3.67	4.24	3.86	3.10	4.01	3.41	3.15
Percentage Composition of the Milk. Solids other than Fat ...	8.62	8.69	8.89	8.71	8.67	8.79	9.10	9.28	9.04	8.75	9.17	9.17
Percentage Composition of the Milk. Total Solids ...	11.88	12.34	11.66	12.38	12.22	12.46	13.34	13.14	12.14	12.76	12.58	12.32
Actual weight of Fat, in lbs. ...	0.740	0.814	0.597	0.978	0.985	0.965	1.166	1.108	0.848	1.177	0.939	0.977
Actual weight of Solids other than Fat, in lbs. ...	1.96	1.94	1.92	2.32	2.41	2.31	2.50	2.66	2.47	2.57	2.53	2.84
Points—												
For weight of Milk (lbs.) ...	66.55			80.70			83.55			87.90		
For weight of Fat (lbs. × 20) ...	43.02			58.56			62.44			61.86		
For weight of Solids other than Fat (lbs. × 4) ...	23.28			28.16			30.52			31.76		
Total Points for Milk ...	132.85			167.42			176.51			181.52		
Deductions ...	10.00			—			—			—		
TOTAL POINTS GAINED FOR MILK	122.85			167.42			176.51			181.52		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**122.85**			**167.42**			**176.51**			**181.52**		
Points gained for Milk per 1,000 lbs. live weight ...	92.23			106.10			133.52			130.12		
Points for time since Calving ...	—			—			—			—		
Total Points per 1,000 lbs. live weight ...	92.23			106.10			133.52			130.12		
Remarks and Awards ...	Highly Commended.			Reserve.			2nd Prize.			1st Prize.		

CLASS 8.—BRITISH FRIESIAN COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	119			120			122			123		
Name	Packthorne Gertie.			Willaston Magnet 5th.			Netherhall Jean.			Chebbard Janrosa.		
Born	1930			May 5, 1928.			Oct. 24, 1927.			Feb. 11, 1929.		
Live weight, in lbs.	1,488			1,255			1,242			1,305		
Last Calved	Sept. 27.			Sept. 26.			Sept. 22.			Oct. 6.		
Days since Calving	24			25			29			15		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	23.7	21.3	21.6	27.5	18.8	24.4	27.7	27.7	26.1	28.1	26.2	24.2
Weight of Milk, 2nd day	23.1	22.9	22.8	25.5	25.5	27.6	30.6	26.2	26.0	28.1	27.1	25.3
Total	46.8	44.2	44.4	53.0	44.3	52.0	58.3	53.9	52.1	56.2	53.3	49.5
Average	23.4	22.1	22.2	26.5	22.15	26.0	29.15	26.95	26.05	28.1	26.65	24.75
Percentage Composition of the Milk. Fat	3.10	3.99	3.02	3.93	3.00	3.21	3.75	4.55	3.24	2.86	3.33	2.68
Percentage Composition of the Milk. Solids other than Fat	8.84	9.02	9.26	8.59	8.50	8.67	8.67	8.57	9.00	8.00	8.19	8.24
Percentage Composition of the Milk. Total Solids	11.94	13.01	12.28	12.52	11.50	11.88	12.42	13.12	12.24	10.86	11.52	10.92
Actual weight of Fat, in lbs.	0.725	0.882	0.670	1.041	0.665	0.835	1.093	1.226	0.844	—	—	—
Actual weight of Solids other than Fat, in lbs. ...	2.07	1.99	2.06	2.28	1.88	2.25	2.53	2.31	2.34	—	—	—
Points—												
For weight of Milk (lbs.)	67.70			74.65			82.15			—		
For weight of Fat (lbs. × 20)	45.54			50.82			63.26			—		
For weight of Solids other than Fat (lbs. × 4) ...	24.48			25.64			28.72			—		
Total Points for Milk	137.72			151.11			174.13			—		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	137.72			151.11			174.13			—		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**137.72**			**151.11**			**174.13**			—		
Points gained for Milk per 1,000 lbs. live weight ...	92.55			120.41			140.20			—		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	92.55			120.41			140.20			—		
Remarks and Awards	Highly Commended.			Highly Commended.			3rd Prize.			Disqualified.		

CLASS 8.—BRITISH FRIESIAN COW (BORN ON OR PREVIOUS TO 1ST AUGUST,, 1930)—*Continued.*

CLASS 9.—BRITISH FRIESIAN COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK OR THE SUPPLEMENTARY REGISTER. BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932.

	Class 8			Class 9								
Number	127			132			133			134		
Name	Hawthorn Katja.			Terling Lead 42nd.			Abingworth Hazel.			Marshgreen Bessie.		
Born	May 6, 1927.			May 11, 1932.			Mar. 19, 1932.			July 30, 1931.		
Live weight, in lbs.	1,438			1,293			1,236			1,108		
Last Calved	Oct. 5.			Sept. 12.			Sept. 28.			Sept. 18.		
Days since Calving	16			39			23			33		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	24.9	24.1	23.4	25.6	29.9	26.3	27.0	26.7	26.8	28.4	27.1	28.2
Weight of Milk, 2nd day	23.6	23.9	23.8	24.9	26.3	24.4	25.6	25.5	25.2	27.3	28.6	31.6
Total	48.5	48.0	47.2	50.5	56.2	50.7	52.6	52.2	52.0	55.7	55.7	59.8
Average	24.25	24.0	23.6	25.25	28.1	25.35	26.3	26.1	26.0	27.85	27.85	29.9
Percentage Composition of the Milk. Fat	3.51	3.62	3.39	2.72	3.36	2.79	4.01	3.96	3.29	3.36	3.56	3.08
Percentage Composition of the Milk. Solids other than Fat	9.19	9.06	9.09	8.90	9.00	8.97	8.75	8.98	9.07	8.26	8.44	8.18
Percentage Composition of the Milk. Total Solids	12.70	12.68	12.48	11.62	12.36	11.76	12.76	12.94	12.36	11.62	12.00	11.26
Actual weight of Fat, in lbs.	0.851	0.869	0.800	0.687	0.944	0.707	1.055	1.034	0.855	0.936	0.991	0.921
Actual weight of Solids other than Fat, in lbs. ...	2.23	2.17	2.15	2.25	2.53	2.27	2.30	2.34	2.36	2.30	2.35	2.45
Points—												
For weight of Milk (lbs.)	71.85			78.70			78.40			85.60		
For weight of Fat (lbs. × 20)	50.40			46.76			58.88			56.96		
For weight of Solids other than Fat (lbs. × 4) ...	26.20			28.29			28.00			28.40		
Total Points for Milk	148.45			153.66			165.28			170.96		
Deductions	—			20.00			—			30.00		
TOTAL POINTS GAINED FOR MILK	148.45			133.66			165.28			140.96		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**148.45**			**133.66**			**165.28**			**140.96**		
Points gained for Milk per 1,000 lbs. live weight ...	103.23			103.37			133.72			127.22		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	103.23			103.37			133.72			127.22		
Remarks and Awards	Highly Commended.			3rd Prize.			1st Prize.			2nd Prize.		

CLASS 9.—BRITISH FRIESIAN COW (BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932)—*Continued*.

Number	136			138			140			141		
Name	Grittleton Lucky 8th.			Chebbard Demifrits.			Barwyke Myrtle Leaf.			Egham Thelma 3rd.		
Born	Aug. 30, 1930.			Jan. 14, 1931.			Aug. 30, 1931.			Feb. 13, 1931.		
Live weight, in lbs.	1,254			1,182			1,237			1,361		
Last Calved	Aug. 7.			Sept. 22.			Sept. 9.			Aug. 26.		
Days since Calving	75			29			42			56		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	26.5	25.4	22.9	26.2	23.8	22.6	22.4	21.3	20.3	25.6	24.9	26.3
Weight of Milk, 2nd day	23.8	24.7	24.4	22.8	23.7	24.2	18.0	18.3	16.6	26.6	28.8	26.5
Total	50.3	50.1	47.3	49.0	47.5	46.8	40.4	39.6	36.9	52.2	53.7	52.8
Average	25.15	25.05	23.65	24.5	23.75	23.4	20.2	19.8	18.45	26.1	26.85	26.4
Percentage Composition of the Milk. Fat	2.72	2.79	1.93	2.87	3.26	2.88	3.11	4.03	3.94	3.25	2.37	3.37
Percentage Composition of the Milk. Solids other than Fat	9.26	9.51	9.39	8.63	8.92	8.66	8.91	8.91	8.66	8.17	8.31	8.31
Percentage Composition of the Milk. Total Solids	11.98	12.30	11.32	11.50	12.18	11.54	12.02	12.94	12.60	11.42	10.68	11.68
Actual weight of Fat, in lbs.	0.684	0.699	0.456	0.703	0.774	0.674	0.628	0.798	0.727	—	—	—
Actual weight of Solids other than Fat, in lbs. ...	2.33	2.38	2.22	2.11	2.12	2.03	1.80	1.76	1.60	—	—	—
Points—												
For weight of Milk (lbs.)	73.85			71.65			58.45			—		
For weight of Fat (lbs. × 20)	36.78			43.02			43.06			—		
For weight of Solids other than Fat (lbs. × 4) ...	27.72			25.04			20.64			—		
Total Points for Milk	138.35			139.71			122.15			—		
Deductions	30.00			20.00			—			—		
TOTAL POINTS GAINED FOR MILK	108.35			119.71			122.15			—		
Points for time since Calving ...	3.5			—			0.2			—		
TOTAL POINTS GAINED ...	**111.85**			**119.71**			**122.35**			—		
Points gained for Milk per 1,000 lbs. live weight ...	86.40			101.28			98.75			—		
Points for time since Calving	3.5			—			0.2			—		
Total Points per 1,000 lbs. live weight	89.90			101.28			98.95			—		
Remarks and Awards	Highly Commended.			Highly Commended.			Reserve.			Disqualified.		

CLASS 9.—BRITISH FRIESIAN COW (BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932)—*Continued.*

CLASS 10.—BRITISH FRIESIAN HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OR THE SUPPLEMENTARY REGISTER. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF.

Number	142			143			147			148		
Name	Egham Marigold 6th.			Egham Titania 6th.			Oakham Dainty Gem.			Oakham Dolce.		
Born	Sept. 29, 1931.			Sept. 25, 1931.			Oct. 2, 1932.			Jan. 1, 1933.		
Live weight, in lbs.	1,386			1,192			1,302			1,132		
Last Calved	Sept. 5.			Sept. 10.			Sept. 4.			Sept. 15.		
Days since Calving	46			41			47			36		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.4	19.3	19.8	19.3	18.6	15.9	17.7	19.4	18.0	16.8	16.0	16.5
Weight of Milk, 2nd day	21.0	22.8	20.0	19.9	19.8	19.1	17.3	17.1	16.2	16.7	14.7	15.3
Total	42.4	42.1	39.8	39.2	38.4	35.0	35.0	36.5	34.2	33.5	30.7	31.8
Average	21.2	21.05	19.9	19.6	19.2	17.5	17.5	18.25	17.1	16.75	15.35	15.9
Percentage Composition of the Milk. Fat	3.88	2.74	3.02	3.38	4.43	3.89	3.18	3.93	3.24	2.23	2.67	3.01
Percentage Composition of the Milk. Solids other than Fat	8.70	8.96	8.94	9.14	8.87	9.25	8.84	8.89	8.82	8.75	9.03	9.05
Percentage Composition of the Milk. Total Solids	12.58	11.70	11.96	12.52	13.30	13.14	12.02	12.82	12.06	10.98	11.70	12.06
Actual weight of Fat, in lbs.	0.823	0.577	0.601	0.662	0.851	0.681	0.557	0.717	0.554	0.374	0.410	0.479
Actual weight of Solids other than Fat, in lbs. ...	1.84	1.89	1.78	1.79	1.70	1.62	1.55	1.62	1.51	1.47	1.39	1.44
Points—												
For weight of Milk (lbs.)	62.15			56.30			52.85			48.00		
For weight of Fat (lbs. × 20)	40.02			43.88			36.56			25.26		
For weight of Solids other than Fat (lbs. × 4) ...	22.04			20.44			18.72			17.20		
Total Points for Milk	124.21			120.62			108.13			90.46		
Deductions	10.00			—			—			20.00		
TOTAL POINTS GAINED FOR MILK	114.21			120.62			108.13			70.46		
Points for time since Calving ...	0.6			0.1			0.7			—		
TOTAL POINTS GAINED ...	**114.81**			**120.72**			**108.83**			**70.46**		
Points gained for Milk per 1,000 lbs. live weight ...	82.40			101.19			83.05			62.24		
Points for time since Calving	0.6			0.1			0.7			—		
Total Points per 1,000 lbs. live weight	83.00			101.29			83.75			62.24		
Remarks and Awards	Highly Commended.			Highly Commended.			1st Prize.					

CLASS 10.—BRITISH FRIESIAN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number Name	149 Bordeaux Marvel.			150 Chelmsford Lilac 3rd.			151 Gilston Arlod Moya.			157 Barwyke Serynte Lilac.		
Born	Oct. 8, 1932.			Mar. 30, 1933.			Mar. 5, 1933.			Aug. 22, 1932.		
Live weight, in lbs.	1,269			1,096			1,418			1,222		
Last Calved	Sept. 6.			Sept. 25.			Oct. 1.			Oct. 1.		
Days since Calving	45			26			20			20		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.5	20.1	15.4	16.6	16.3	17.5	14.9	15.1	15.0	17.1	19.6	19.1
Weight of Milk, 2nd day	19.2	17.2	19.4	16.5	18.5	16.5	15.1	15.2	14.2	17.9	18.9	19.6
Total	37.7	37.3	34.8	33.1	34.8	34.0	30.0	30.3	29.2	35.0	38.5	38.7
Average	18.85	18.65	17.4	16.55	17.4	17.0	15.0	15.15	14.6	17.5	19.25	19.35
Percentage Composition of the Milk. Fat	1.82	2.29	1.95	3.25	3.57	3.09	3.83	4.17	3.45	2.51	2.50	1.69
Percentage Composition of the Milk. Solids other than Fat	8.52	8.87	8.59	9.19	9.13	9.23	9.53	9.33	9.27	8.83	8.88	8.77
Percentage Composition of the Milk. Total Solids	10.34	11.16	10.54	12.44	12.70	12.32	13.36	13.50	12.72	11.34	11.38	10.46
Actual weight of Fat, in lbs.	0.343	0.427	0.339	0.538	0.621	0.525	0.575	0.632	0.504	0.439	0.481	0.327
Actual weight of Solids other than Fat, in lbs.	1.61	1.65	1.49	1.52	1.59	1.57	1.43	1.41	1.35	1.55	1.71	1.70
Points—												
For weight of Milk (lbs.)	54.90			50.95			44.75			56.10		
For weight of Fat (lbs. × 20)	22.18			33.68			34.22			24.94		
For weight of Solids other than Fat (lbs. × 4)	19.00			18.72			16.76			19.84		
Total Points for Milk	96.08			103.35			95.73			100.88		
Deductions	30.00			—			—			30.00		
TOTAL POINTS GAINED FOR MILK	66.08			103.35			95.73			70.88		
Points for time since Calving	0.5			—			—			—		
TOTAL POINTS GAINED	**66.58**			**103.35**			**95.73**			**70.88**		
Points gained for Milk per 1,000 lbs. live weight	52.07			94.30			67.51			58.00		
Points for time since Calving	0.5			—			—			—		
Total Points per 1,000 lbs. live weight	52.57			94.30			67.51			58.00		
Remarks and Awards				3rd Prize.			Reserve.					

CLASS 10.—BRITISH FRIESIAN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	158			161			162		
Name	Barwyke Minnie.			Egham Darling 7th.			Netherhall Humbug 2nd.		
Born	Aug. 24, 1932.			Oct. 15, 1932.			Oct. 30, 1932.		
Live weight, in lbs.	1,299			1,125			1,059		
Last Calved	Sept. 27.			July 14.			Sept. 19.		
Days since Calving	24			99			32		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	17.9	17.7	18.1	16.9	17.3	15.4	15.1	20.0	17.8
Weight of Milk, 2nd day	17.3	17.9	17.7	17.0	17.7	17.0	17.0	16.9	17.4
Total	35.2	35.6	35.8	33.9	35.0	32.4	32.1	36.9	35.2
Average	17.6	17.8	17.9	16.95	17.5	16.2	16.05	18.45	17.6
Percentage Composition of the Milk. Fat	3.01	3.28	3.35	2.88	2.66	2.83	2.93	5.49	4.44
Percentage Composition of the Milk. Solids other than Fat	8.53	8.60	8.31	8.66	8.44	8.67	8.59	9.03	8.94
Percentage Composition of the Milk. Total Solids	11.54	11.88	11.66	11.54	11.10	11.50	11.52	14.52	13.38
Actual weight of Fat, in lbs.	0.530	0.584	0.600	—	—	—	0.470	1.013	0.781
Actual weight of Solids other than Fat, in lbs.	1.50	1.53	1.49	—	—	—	1.38	1.67	1.57
Points—									
For weight of Milk (lbs.)	53.30			—			52.10		
For weight of Fat (lbs. × 20)	34.28			—			45.28		
For weight of Solids other than Fat (lbs. × 4)	18.08			—			18.48		
Total Points for Milk	105.66			—			115.86		
Deductions	10.00			—			10.00		
TOTAL POINTS GAINED FOR MILK	95.66			—			105.86		
Points for time since Calving	—			—			—		
TOTAL POINTS GAINED	**95.66**			—			**105.86**		
Points gained for Milk per 1,000 lbs. live weight	73.64			—			99.96		
Points for time since Calving	—			—			—		
Total Points per 1,000 lbs. live weight	73.64			—			99.96		
Remarks and Awards	Highly Commended.			Disqualified.			2nd Prize.		

CLASS 11.—SOUTH DEVON COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1930. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 7,500 LBS. AT FIVE YEARS OLD OR OVER, OR 5,600 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number Name	167 Crocus.			168 Graceful.			169 Dartington Lassie.			171 Cinderella.		
Born	Apr. 6, 1929.			May 22, 1928.			Mar. 7, 1928.			June 22, 1929.		
Live weight, in lbs.	1,682			1,554			1,627			1,708		
Last Calved	Oct. 6.			Sept. 2.			Apr. 14.			Oct. 4.		
Days since Calving	15			49			190			17		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	12.5	12.7	11.9	18.0	19.8	19.2	23.1	18.1	18.8	22.1	18.3	17.7
Weight of Milk, 2nd day	11.8	11.8	12.9	19.0	18.6	17.3	22.9	19.2	19.9	18.5	18.7	20.1
Total	24.3	24.5	24.8	37.0	38.4	36.5	46.0	37.3	38.7	40.6	37.0	37.8
Average	12.15	12.25	12.4	18.5	19.2	18.25	23.0	18.65	19.35	20.3	18.5	18.9
Percentage Composition of the Milk. Fat	4.47	4.94	5.07	4.63	4.99	4.31	4.66	3.29	3.14	6.13	6.30	5.52
Solids other than Fat	9.31	9.18	9.45	9.21	9.03	9.47	8.32	8.19	8.84	9.55	10.00	9.84
Total Solids	13.78	14.12	14.52	13.84	14.02	13.78	12.98	11.48	11.98	15.68	16.30	15.36
Actual weight of Fat, in lbs.	0.543	0.605	0.629	0.857	0.958	0.787	1.072	0.614	0.608	1.244	1.166	1.043
Actual weight of Solids other than Fat, in lbs.	1.13	1.12	1.17	1.70	1.73	1.73	1.91	1.53	1.71	1.94	1.85	1.86
Points—												
For weight of Milk (lbs.)	36.80			55.95			61.00			57.70		
For weight of Fat (lbs. × 20)	35.54			52.04			45.88			69.06		
For weight of Solids other than Fat (lbs. × 4)	13.68			20.64			20.60			22.60		
Total Points for Milk	86.02			128.63			127.48			149.36		
Deductions	—			—			20.00			—		
TOTAL POINTS GAINED FOR MILK	86.02			128.63			107.48			149.36		
Points for time since Calving	—			0.9			12.0			—		
TOTAL POINTS GAINED	**86.02**			**129.53**			**119.48**			**149.36**		
Points gained for Milk per 1,000 lbs. live weight	51.14			82.77			66.06			87.45		
Points for time since Calving	—			0.9			12.0			—		
Total Points per 1,000 lbs. live weight	51.14			83.67			78.06			87.45		
Remarks and Awards				3rd Prize.			Reserve.			1st Prize.		

CLASS 11.—SOUTH DEVON COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

CLASS 12.—SOUTH DEVON COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932.

	Class 11			Class 12								
Number	172			173			174			176		
Name	Milkmaid 3rd.			Milkmaid 5th.			Dartington Dairymaid.			Winsor Alma.		
Born	Oct. 3, 1929.			Oct. 7, 1930.			Nov. 19, 1931.			Mar. 10, 1931.		
Live weight, in lbs.	1,872			1,758			1,384			1,270		
Last Calved	Sept. 18.			Oct. 5.			Aug. 21.			Sept. 19.		
Days since Calving	33			16			61			32		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.9	22.3	19.3	22.9	19.8	19.5	16.5	16.2	15.6	19.3	21.1	20.5
Weight of Milk, 2nd day	20.9	21.5	21.0	19.9	19.0	21.2	17.4	14.9	15.7	21.0	19.1	19.3
Total	40.8	43.8	40.3	42.8	38.8	40.7	33.9	31.1	31.3	40.3	40.2	39.8
Average	20.4	21.9	20.15	21.4	19.4	20.35	16.95	15.55	15.65	20.15	20.1	19.9
Percentage Composition of the Milk. Fat	5.31	5.26	4.68	7.33	5.74	6.01	5.19	5.23	6.37	4.55	5.73	5.86
Percentage Composition of the Milk. Solids other than Fat	9.25	9.24	9.12	9.21	9.48	9.39	9.05	9.49	9.43	9.29	9.33	9.32
Percentage Composition of the Milk. Total Solids	14.56	14.50	13.80	16.54	15.22	15.40	14.24	14.72	15.80	13.84	15.06	15.18
Actual weight of Fat, in lbs.	1.083	1.152	0.943	1.569	1.114	1.223	0.880	0.813	0.997	0.917	1.152	1.166
Actual weight of Solids other than Fat, in lbs. ...	1.89	2.02	1.84	1.97	1.84	1.91	1.53	1.48	1.48	1.87	1.88	1.85
Points—												
For weight of Milk (lbs.)	62.45			61.15			48.15			60.15		
For weight of Fat (lbs. × 20)	63.56			78.12			53.80			64.70		
For weight of Solids other than Fat (lbs. × 4) ...	23.00			22.88			17.96			22.40		
Total Points for Milk	149.01			162.15			119.91			147.25		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	149.01			162.15			119.91			147.25		
Points for time since Calving ...	—			—			2.1			—		
TOTAL POINTS GAINED ...	**149.01**			**162.15**			**122.01**			**147.25**		
Points gained for Milk per 1,000 lbs. live weight ...	79.60			92.24			86.64			115.94		
Points for time since Calving	—			—			2.1			—		
Total Points per 1,000 lbs. live weight	79.60			92.24			88.74			115.94		
Remarks and Awards	2nd Prize.			1st Prize.			Reserve.			2nd Prize.		

CLASS 12.—SOUTH DEVON COW (BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932)—*Continued.*

Number	177			178		
Name	Dartington Hall Gentle 8th.			Dartington Hall Nervous Alice 2nd.		
Born	Oct. 12, 1930.			Feb. 12, 1932.		
Live weight, in lbs.	1,649			1,508		
Last Calved	Sept. 3.			Aug. 13.		
Days since Calving	48			69		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.5	14.9	14.6	25.0	17.2	13.5
Weight of Milk, 2nd day	15.3	15.5	14.7	15.5	15.9	14.8
Total	33.8	30.4	29.3	40.5	33.1	28.3
Average	16.9	15.2	14.65	20.25	16.55	14.15
Percentage Composition of the Milk. Fat	5.46	6.02	4.91	5.37	6.27	4.57
Percentage Composition of the Milk. Solids other than Fat	9.06	8.96	9.13	9.23	8.91	9.07
Percentage Composition of the Milk. Total Solids	14.52	14.98	14.04	14.60	15.18	13.64
Actual weight of Fat, in lbs.	0.923	0.915	0.719	1.087	1.038	0.647
Actual weight of Solids other than Fat, in lbs. ...	1.53	1.36	1.34	1.87	1.47	1.28
Points—						
For weight of Milk (lbs.)	46.75			50.95		
For weight of Fat (lbs. × 20)	51.14			55.44		
For weight of Solids other than Fat (lbs. × 4) ...	16.92			18.48		
Total Points for Milk	114.81			124.87		
Deductions	—			—		
TOTAL POINTS GAINED FOR MILK	114.81			124.87		
Points for time since Calving ...	0.8			2.9		
TOTAL POINTS GAINED ...	**115.61**			**127.77**		
Points gained for Milk per 1,000 lbs. live weight ...	69.62			82.81		
Points for time since Calving	0.8			2.9		
Total Points per 1,000 lbs. live weight	70.42			85.71		
Remarks and Awards	Highly Commended.			3rd Prize.		

CLASS 13.—SOUTH DEVON HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF.

Number ...	180			183			184		
Name ...	Dartington Belle 1st.			Dartington Cowslip 1st.			Rydon Milkmaid 7th.		
Born ...	Sept. 10, 1932.			Jan. 17, 1933.			Sept. 20, 1932.		
Live weight, in lbs. ...	1,396			1,326			1,464		
Last Calved ...	Sept. 17.			Oct. 2.			Oct. 7.		
Days since Calving ...	34			19			14		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	9.6	13.1	10.8	14.8	14.5	13.8	13.8	13.5	13.7
Weight of Milk, 2nd day ...	13.2	14.6	13.6	15.6	14.5	15.9	13.7	13.3	13.7
Total ...	22.8	27.7	24.4	30.4	29.0	29.7	27.5	26.8	27.4
Average ...	11.4	13.85	12.2	15.2	14.5	14.85	13.75	13.4	13.7
Percentage Composition of the Milk. Fat ...	2.47	3.84	3.00	5.33	5.27	4.90	5.93	5.69	6.14
Percentage Composition of the Milk. Solids other than Fat ...	9.45	9.10	9.32	9.39	9.27	9.42	9.37	9.19	9.42
Percentage Composition of the Milk. Total Solids ...	11.92	12.94	12.32	14.72	14.54	14.32	15.30	14.88	15.56
Actual weight of Fat, in lbs. ...	0.282	0.532	0.366	0.810	0.764	0.728	0.815	0.762	0.841
Actual weight of Solids other than Fat, in lbs. ...	1.08	1.26	1.14	1.43	1.34	1.40	1.29	1.23	1.29
Points—									
For weight of Milk (lbs.) ...	37.45			44.55			40.85		
For weight of Fat (lbs. × 20) ...	23.60			46.04			48.36		
For weight of Solids other than Fat (lbs. × 4) ...	13.92			16.68			15.24		
Total Points for Milk ...	74.97			107.27			104.45		
Deductions ...	10.00			—			—		
TOTAL POINTS GAINED FOR MILK	64.97			107.27			104.45		
Points for time since Calving ...	—			—			—		
TOTAL POINTS GAINED ...	**64.97**			**107.27**			**104.45**		
Points gained for Milk per 1,000 lbs. live weight ...	46.54			80.90			71.35		
Points for time since Calving ...	—			—			—		
Total Points per 1,000 lbs. live weight ...	46.54			80.90			71.35		
Remarks and Awards ...				1st Prize.			2nd Prize.		

CLASS 14.—DEVON COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK OR THE SUPPLEMENTARY REGISTER. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 6,500 LBS. AT FIVE YEARS OLD OR OVER, OR 4,800 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	186			187			188			189		
Name	Corton Comet.			Corton Orange.			Woodrow Fancy.			Ruby 4th.		
Born	July 20, 1926.			Jan. 27, 1928.			Dec. 14, 1929.			Jan. 17, 1927.		
Live weight, in lbs.	1,542			1,586			1,510			1,286		
Last Calved	Sept. 13.			Aug. 16.			Sept. 10.			Sept. 25.		
Days since Calving	38			66			41			26		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.4	19.9	19.5	13.0	15.3	14.9	14.5	15.5	15.0	22.7	23.7	23.2
Weight of Milk, 2nd day	20.5	20.1	20.4	13.7	14.9	17.2	14.7	14.3	13.7	22.8	24.6	23.5
Total	39.9	40.0	39.9	26.7	30.2	32.1	29.2	29.8	28.7	45.5	48.3	46.7
Average	19.95	20.0	19.95	13.35	15.1	16.05	14.6	14.9	14.35	22.75	24.15	23.35
Percentage Composition of the Milk. Fat	4.73	4.67	3.84	4.67	4.97	4.37	4.04	4.05	4.24	3.21	2.66	3.19
Percentage Composition of the Milk. Solids other than Fat	8.69	8.71	8.96	8.45	8.11	8.50	8.42	8.59	8.60	8.93	8.74	8.83
Percentage Composition of the Milk. Total Solids	13.42	13.38	12.80	13.12	13.08	12.87	12.46	12.64	12.84	12.14	11.40	12.02
Actual weight of Fat, in lbs.	0.944	0.934	0.766	0.623	0.750	0.701	0.590	0.603	0.608	0.730	0.642	0.745
Actual weight of Solids other than Fat, in lbs. ...	1.73	1.74	1.79	1.13	1.22	1.36	1.23	1.28	1.23	2.03	2.11	2.06
Points—												
For weight of Milk (lbs.)	59.90			44.50			43.85			70.25		
For weight of Fat (lbs. × 20)	52.88			41.48			36.02			42.34		
For weight of Solids other than Fat (lbs. × 4) ...	21.04			14.84			14.96			24.80		
Total Points for Milk	133.82			100.82			94.83			137.39		
Deductions	—			20.00			10.00			10.00		
TOTAL POINTS GAINED FOR MILK	133.82			80 82			84.83			127.39		
Points for time since Calving ...	—			2.6			0.1			—		
TOTAL POINTS GAINED ...	**133.82**			**83.42**			**84.93**			**127.39**		
Points gained for Milk per 1,000 lbs. live weight ...	86.78			50.96			56.18			99.06		
Points for time since Calving	—			2.6			0.1			—		
Total Points per 1,000 lbs. live weight	86.78			53.56			56.28			99.06		
Remarks and Awards	1st Prize.									2nd Prize.		

CLASS 15.—RED POLL COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1930. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MIMIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	190			191			192			194		
Name	Longford Bitter Sweet.			Longford Ruby 7th.			Knepp Cowslip 14th.			Culford Maple.		
Born	Oct. 15, 1927.			July 16, 1928.			Feb. 5, 1929.			Mar. 28, 1927.		
Live weight, in lbs.	1,334			1,080			1,171			1,232		
Last Calved	Sept. 5.			Sept. 1.			Oct. 1.			Aug. 26.		
Days since Calving	46			50			20			56		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	24.9	23.9	22.9	20.7	19.5	20.3	18.5	19.3	17.8	18.3	17.6	18.4
Weight of Milk, 2nd day	22.8	22.1	22.9	19.7	19.2	20.2	19.5	19.0	18.4	19.3	18.8	18.6
Total	47.7	46.0	45.8	40.4	38.7	40.5	38.0	38.3	36.2	37.6	36.4	37.0
Average	23.85	23.0	22.9	20.2	19.35	20.25	19.0	19.15	18.1	18.8	18.2	18.5
Percentage Composition of the Milk. Fat	4.42	4.86	4.85	4.53	4.26	4.35	5.79	5.71	5.80	4.08	4.87	5.49
Percentage Composition of the Milk. Solids other than Fat	8.50	8.50	8.47	8.75	9.04	8.85	8.77	8.65	8.92	8.60	8.63	8.73
Percentage Composition of the Milk. Total Solids	12.92	13.36	13.32	13.28	13.30	13.20	14.56	14.36	14.72	12.68	13.50	14.22
Actual weight of Fat, in lbs.	1.054	1.118	1.111	0.915	0.824	0.881	1.100	1.093	1.050	0.767	0.886	1.016
Actual weight of Solids other than Fat, in lbs. ...	2.03	1.96	1.94	1.77	1.75	1.79	1.67	1.66	1.61	1.62	1.57	1.62
Points—												
For weight of Milk (lbs.)	69.75			59.80			56.25			55.50		
For weight of Fat (lbs. × 20)	65.66			52.40			64.86			53.38		
For weight of Solids other than Fat (lbs. × 4) ...	23.72			21.24			19.76			19.24		
Total Points for Milk	159.13			133.44			140.87			128.12		
Deductions	10.00			—			—			—		
TOTAL POINTS GAINED FOR MILK	149.13			133.44			140.87			128.12		
Points for time since Calving ...	0.6			1.0			—			1.6		
TOTAL POINTS GAINED ...	**149.73**			**134.44**			**140.87**			**129.72**		
Points gained for Milk per 1,000 lbs. live weight ...	111.79			123.56			120.30			103.99		
Points for time since Calving	0.6			1.0			—			1.6		
Total Points per 1,000 lbs. live weight	112.39			124.56			120.30			105.59		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 15.—RED POLL COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	195			196			197			198		
Name	Hyders Daffodil.			White Hill Red Briar.			White Hill Charming Delight.			Ashmoor Briony.		
Born	Mar. 3, 1930.			March 2, 1929.			Jan. 4, 1930.			Nov. 28, 1928.		
Live weight, in lbs.	1,286			1,215			1,088			1,218		
Last Calved	July 10.			Sept. 1.			Sept. 10.			Aug. 16.		
Days since Calving	103			50			41			66		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.9	19.5	19.6	14.8	13.9	13.8	21.1	20.2	20.0	15.1	15.7	13.2
Weight of Milk, 2nd day	21.5	20.3	20.2	13.8	13.8	14.5	19.4	19.8	19.1	14.0	14.3	14.3
Total	40.4	39.8	39.8	28.6	27.7	28.3	40.5	40.0	39.1	29.1	30.0	27.5
Average	20.2	19.9	19.9	14.3	13.85	14.15	20.25	20.0	19.55	14.55	15.0	13.75
Percentage Composition of the Milk. Fat	4.39	5.04	4.97	3.76	4.03	3.62	4.48	4.44	5.12	3.89	3.02	4.29
Percentage Composition of the Milk. Solids other than Fat	8.93	8.94	8.93	8.62	8.63	8.50	8.42	8.46	8.68	8.97	8.66	9.19
Percentage Composition of the Milk. Total Solids	13.32	13.98	13.90	12.38	12.66	12.12	12.90	12.90	14.40	12.86	11.68	13.48
Actual weight of Fat, in lbs.	0.887	1.003	0.989	0.538	0.558	0.512	0.907	0.888	1.118	0.566	0.453	0.590
Actual weight of Solids other than Fat, in lbs.	1.80	1.78	1.78	1.23	1.20	1.20	1.71	1.69	1.70	1.31	1.30	1.26
Points—												
For weight of Milk (lbs.)	60.00			42.30			59.80			43.30		
For weight of Fat (lbs. × 20)	57.58			32.16			58.26			32.18		
For weight of Solids other than Fat (lbs. × 4)	21.44			14.52			20.40			15.48		
Total Points for Milk	139.02			88.98			138.46			90.96		
Deductions	—			—			20.00			—		
TOTAL POINTS GAINED FOR MILK	139.02			88.98			118.46			90.96		
Points for time since Calving	6.3			1.0			0.1			2.6		
TOTAL POINTS GAINED	**145.32**			**89.98**			**118.56**			**93.56**		
Points gained for Milk per 1,000 lbs. live weight	108.10			73.23			108.88			74.68		
Points for time since Calving	6.3			1.0			0.1			2.6		
Total Points per 1,000 lbs. live weight	114.40			74.23			108.98			77.28		
Remarks and Awards	Reserve.						Highly Commended.					

CLASS 15.—RED POLL COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number Name	199 Weston Peggy.			200 Sporle Elm Lady.			201 Holton Rainbow 6th.			202 Samford Witchgirl.		
Born	Mar. 17, 1928.			Jan. 8, 1929.			Aug. 17, 1926.			Dec. 10, 1928.		
Live weight, in lbs.	1,227			1,428			1,482			1,098		
Last Calved	Aug. 25.			Oct. 7.			Oct. 3.			Sept. 10.		
Days since Calving	57			14			18			41		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.5	21.5	21.6	17.2	17.0	17.7	22.1	23.1	21.8	21.1	23.2	24.5
Weight of Milk, 2nd day	22.1	22.3	22.1	17.2	18.6	17.9	23.8	23.7	23.2	24.1	26.0	23.3
Total	44.6	43.8	43.7	34.4	35.6	35.6	45.9	46.8	45.0	45.2	49.2	47.8
Average	22.3	21.9	21.85	17.2	17.8	17.8	22.95	23.4	22.5	22.6	24.6	23.9
Percentage Composition of the Milk. Fat	4.44	3.91	3.96	6.74	4.51	5.49	4.49	4.60	4.06	3.26	2.87	3.15
Percentage Composition of the Milk. Solids other than Fat	9.08	9.11	9.10	9.76	9.11	9.41	8.81	8.86	9.00	8.58	8.50	8.50
Percentage Composition of the Milk. Total Solids	13.52	13.02	13.06	16.50	13.62	14.90	13.30	13.46	13.06	11.84	11.37	11.65
Actual weight of Fat, in lbs.	0.990	0.856	0.865	1.159	0.803	0.977	1.030	1.076	0.914	0.737	0.706	0.753
Actual weight of Solids other than Fat, in lbs.	2.02	2.00	1.99	1.68	1.62	1.67	2.02	2.07	2.03	1.94	2.09	2.03
Points— For weight of Milk (lbs.)	66.05			52.80			68.85			71.10		
For weight of Fat (lbs. × 20)	54.22			58.78			60.40			43.92		
For weight of Solids other than Fat (lbs. × 4)	24.04			19.88			24.48			24.24		
Total Points for Milk	144.31			131.46			153.73			139.26		
Deductions	—			—			—			10.00		
TOTAL POINTS GAINED FOR MILK	144.31			131.46			153.73			129.26		
Points for time since Calving	1.7			—			—			0.1		
TOTAL POINTS GAINED	**146.01**			**131.46**			**153.73**			**129.36**		
Points gained for Milk per 1,000 lbs. live weight	117.61			92.06			103.73			117.72		
Points for time since Calving	1.7			—			—			0.1		
Total Points per 1,000 lbs. live weight	119.31			92.06			103.73			117.82		
Remarks and Awards	5th Prize.			Highly Commended.			2nd Prize.			Highly Commended.		

CLASS 15.—RED POLL COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	206			208			209			210		
Name	Lydiate Lottie.			Eastwell Marshmallow.			Combwell Rosie.			Seven Springs Quintal.		
Born	Dec. 5, 1929.			Sept. 21, 1929.			Feb. 21, 1930.			Sept. 18, 1927.		
Live weight, in lbs.	1,221			1,242			1,145			1,363		
Last Calved	May 22.			Oct. 2.			Sept. 22.			June 24.		
Days since Calving	152			19			29			119		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	13.8	14.6	15.2	19.7	20.8	20.9	23.7	24.5	22.6	20.5	12.6	17.0
Weight of Milk, 2nd day	15.8	14.5	13.6	20.8	20.5	20.8	23.8	24.3	22.7	16.3	15.9	16.2
Total	29.6	29.1	28.8	40.5	41.3	41.7	47.5	48.8	45.3	36.8	28.5	33.2
Average	14.8	14.55	14.4	20.25	20.65	20.85	23.75	24.4	22.65	18.4	14.25	16.6
Percentage Composition of the Milk. Fat	4.17	4.75	3.89	4.91	5.05	5.30	4.28	5.11	4.21	3.79	3.44	3.39
Percentage Composition of the Milk. Solids other than Fat	8.99	8.71	8.97	8.99	8.67	8.70	8.86	9.05	9.03	8.37	8.72	8.71
Percentage Composition of the Milk. Total Solids	13.16	13.46	12.86	13.90	13.72	14.00	13.14	14.16	13.24	12.16	12.16	12.10
Actual weight of Fat, in lbs.	0.617	0.691	0.560	0.994	1.043	1.105	1.017	1.247	0.954	0.697	0.490	0.563
Actual weight of Solids other than Fat, in lbs. ...	1.33	1.27	1.29	1.82	1.79	1.81	2.10	2.21	2.05	1.54	1.24	1.45
Points— For weight of Milk (lbs.)	43.75			61.75			70.80			49.25		
For weight of Fat (lbs. × 20)	37.36			62.84			64.36			35.00		
For weight of Solids other than Fat (lbs. × 4) ...	15.56			21.68			25.44			16.92		
Total Points for Milk	96.67			146.27			160.60			101.17		
Deductions	—			—			—			10.00		
TOTAL POINTS GAINED FOR MILK	96.67			146.27			160.60			91.17		
Points for time since Calving ...	11.2			—			—			7.9		
TOTAL POINTS GAINED ...	**107.87**			**146.27**			**160.60**			**99.07**		
Points gained for Milk per 1,000 lbs. live weight ...	79.17			117.77			140.26			66.89		
Points for time since Calving	11.2			—			—			7.9		
Total Points per 1,000 lbs. live weight	90.37			117.77			140.26			74.79		
Remarks and Awards	Highly Commended.			4th Prize.			1st Prize.					

CLASS 15.—RED POLL COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

CLASS 16.—RED POLL COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932.

Number	211			216			217			218		
Name	Framlingham Delight.			Seven Springs Question.			Yoxford Charlotte 4th.			Beeding Rose 2nd.		
Born	July 24, 1929.			July 17, 1931.			Dec. 3, 1931.			Oct. 13, 1930.		
Live weight, in lbs.	1,290			1,266			1,114			1,198		
Last Calved	Aug. 8.			Sept. 14.			Aug. 8.			Sept. 14.		
Days since Calving	74			37			74			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.9	12.2	16.5	14.0	13.9	13.2	15.6	14.0	15.4	17.7	17.7	18.7
Weight of Milk, 2nd day	17.7	12.6	19.4	13.7	14.3	15.3	15.0	15.1	15.7	19.4	18.5	17.8
Total	29.6	24.8	38.9	27.7	28.2	28.5	30.6	29.1	31.1	37.1	36.2	36.5
Average	14.8	12.4	17.95	13.85	14.1	14.25	15.3	14.55	15.55	18.55	18.1	18.25
Percentage Composition of the Milk. Fat	2.73	2.39	2.46	3.48	5.27	5.09	4.10	3.94	4.03	3.97	4.41	4.02
Percentage Composition of the Milk. Solids other than Fat	8.53	8.39	8.40	9.08	8.69	8.75	8.92	9.10	8.79	8.95	8.79	9.08
Percentage Composition of the Milk. Total Solids	11.26	10.78	10.86	12.56	13.96	13.84	13.02	13.04	12.82	12.92	13.20	13.10
Actual weight of Fat, in lbs.	—	—	—	0.482	0.743	0.725	0.627	0.573	0.627	0.736	0.798	0.734
Actual weight of Solids other than Fat, in lbs. ...	—	—	—	1.26	1.23	1.25	1.36	1.32	1.37	1.66	1.59	1.66
Points—												
For weight of Milk (lbs.)	—			42.20			45.40			54.90		
For weight of Fat (lbs. × 20)	—			39.00			36.54			45.36		
For weight of Solids other than Fat (lbs. × 4) ...	—			14.96			16.20			19.64		
Total Points for Milk	—			96.16			98.14			119.90		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	—			96.16			98.14			119.90		
Points for time since Calving ...	—			—			3.4			—		
TOTAL POINTS GAINED ...	—			**96.16**			**101.54**			**119.90**		
Points gained for Milk per 1,000 lbs. live weight ...	—			75.96			88.10			100.08		
Points for time since Calving	—			—			3.4			—		
Total Points per 1,000 lbs. live weight	—			75.96			91.50			100.08		
Remarks and Awards	Disqualified.			Highly Commended.			Highly Commended.			Reserve.		

CLASS 16.—RED POLL COW (BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932)—*Continued.*

Number	219			220			221			222		
Name	White Hill Monks Flight.			Ashmoor Northernlight.			Kirton Sundial.			Ashmoor Marvel.		
Born	Dec. 12, 1931.			Mar. 5, 1931.			Jan. 27, 1932.			July 5, 1931.		
Live weight, in lbs.	1,068			1,282			1,110			1,100		
Last Calved	Sept. 9.			Sept. 4.			May 27.			Sept. 18.		
Days since Calving	42			47			147			33		
	Morn.	Aft.	Even.	Morn	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even
Weight of Milk, 1st day	30.3	24.2	23.9	11.2	9.7	9.3	17.5	18.0	17.0	19.0	19.1	19.3
Weight of Milk, 2nd day	24.2	22.5	21.6	9.6	11.2	9.0	16.4	17.0	19.0	18.9	20.2	20.9
Total	54.5	46.7	45.5	20.8	20.9	18.3	33.9	35.0	36.0	37.9	39.3	40.2
Average	27.25	23.35	22.75	10.4	10.45	9.15	16.95	17.5	18.0	18.95	19.65	20.1
Percentage Composition of the Milk. Fat	2.45	3.93	2.91	5.51	8.48	5.12	3.63	5.55	4.49	3.73	4.66	3.83
Percentage Composition of the Milk. Solids other than Fat	8.71	8.65	8.45	8.81	9.56	9.18	8.83	8.97	8.63	8.59	8.66	8.75
Percentage Composition of the Milk. Total Solids	11.16	12.58	11.36	14.32	18.04	14.30	12.46	14.52	13.12	12.32	13.32	12.58
Actual weight of Fat, in lbs.	—	—	—	0.573	0.886	0.468	0.615	0.971	0.808	0.707	0.916	0.770
Actual weight of Solids other than Fat, in lbs. ...	—	—	—	0.92	1.00	0.84	1.50	1.57	1.55	1.63	1.70	1.76
Points—												
For weight of Milk (lbs.)	—			30.00			52.45			58.70		
For weight of Fat (lbs. × 20)	—			38.54			47.88			47.86		
For weight of Solids other than Fat (lbs. × 4) ...	—			11.04			18.48			20.36		
Total Points for Milk	—			79.58			118.81			126.92		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	—			79.58			118.81			126.92		
Points for time since Calving ...	—			0.7			10.7			—		
TOTAL POINTS GAINED ...	—			**80.28**			**129.51**			**126.92**		
Points gained for Milk per 1,000 lbs. live weight ...	—			62.07			107.04			115.38		
Points for time since Calving	—			0.7			10.7			—		
Total Points per 1,000 lbs. live weight	—			62.77			117.74			115.38		
Remarks and Awards	Disqualified.						2nd Prize.			3rd Prize.		

CLASS 16.—RED POLL COW (BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932)—*Continued.*

Number	224			225		
Name	Fersfield Pear Bloom.			Mistley Amethyst.		
Born	June 25, 1932.			Jan. 24, 1931.		
Live weight, in lbs.	1,354			1,248		
Last Calved	Oct. 1.			Sept. 17.		
Days since Calving	20			34		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	13.9	15.3	13.8	24.0	21.9	21.1
Weight of Milk, 2nd day	14.7	15.1	14.4	21.8	22.0	22.8
Total	28.6	30.4	28.2	45.8	43.9	43.9
Average	14.3	15.2	14.1	22.9	21.95	21.95
Percentage Composition of the Milk. Fat	3.95	6.54	4.93	3.46	4.78	3.76
Percentage Composition of the Milk. Solids other than Fat	9.01	8.94	8.97	8.80	8.94	8.90
Percentage Composition of the Milk. Total Solids	12.96	15.48	13.90	12.26	13.72	12.66
Actual weight of Fat, in lbs.	0.565	0.994	0.695	0.792	1.049	0.825
Actual weight of Solids other than Fat, in lbs.	1.29	1.36	1.26	2.02	1.96	1.95
Points—						
For weight of Milk (lbs.)	43.60			66.80		
For weight of Fat (lbs. × 20)	45.08			53.32		
For weight of Solids other than Fat (lbs. × 4)	15.64			23.72		
Total Points for Milk	104.32			143.84		
Deductions	—			—		
TOTAL POINTS GAINED FOR MILK	104.32			143.84		
Points for time since Calving	—			—		
TOTAL POINTS GAINED	**104.32**			**143.84**		
Points gained for Milk per 1,000 lbs. live weight	77.05			115.26		
Points for time since Calving	—			—		
Total Points per 1,000 lbs. live weight	77.05			115.26		
Remarks and Awards	Highly Commended.			1st Prize.		

CLASS 17.—RED POLL HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF.

Number	230			231			233			234		
Name	Latimer Meadow Dell.			White Hill Charming Rosemary.			Cranlet Spartan.			Kirton Oaken.		
Born	Sept. 6, 1932.			Dec. 28, 1932.			Nov. 12, 1932.			Nov. 5, 1932.		
Live weight, in lbs.	1,214			1,010			1,204			992		
Last Calved	Sept. 10.			Sept. 29.			Aug. 19.			Aug. 14.		
Days since Calving	41			22			63			68		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	17.1	17.0	16.2	15.1	13.3	12.6	12.6	12.7	12.1	14.8	14.3	13.5
Weight of Milk, 2nd day	17.0	17.1	15.9	14.5	14.6	13.3	13.2	12.8	11.7	14.0	14.0	14.6
Total	34.1	34.1	32.1	29.6	27.9	25.9	25.8	25.5	23.8	28.8	28.3	28.1
Average	17.05	17.05	16.05	14.8	13.95	12.95	12.9	12.75	11.9	14.4	14.15	14.05
Percentage Composition of the Milk. Fat	3.31	4.60	3.51	3.13	4.82	4.20	4.16	4.47	4.27	3.09	3.65	2.82
Percentage Composition of the Milk. Solids other than Fat	8.63	8.90	8.69	9.15	9.40	9.26	8.80	9.17	9.13	8.59	8.59	8.72
Percentage Composition of the Milk. Total Solids	11.94	13.50	12.20	12.28	14.22	13.46	12.96	13.64	13.40	11.68	12.24	11.54
Actual weight of Fat, in lbs.	0.564	0.784	0.563	0.463	0.672	0.544	0.537	0.570	0.508	0.445	0.516	0.396
Actual weight of Solids other than Fat, in lbs.	1.47	1.52	1.39	1.35	1.31	1.20	1.14	1.17	1.09	1.24	1.22	1.23
Points—												
For weight of Milk (lbs.)	50.15			41.70			37.55			42.60		
For weight of Fat (lbs. × 20)	38.22			33.58			32.30			27.14		
For weight of Solids other than Fat (lbs. × 4)	17.52			15.44			13.60			14.76		
Total Points for Milk	105.89			90.72			83.45			84.50		
Deductions	—			—			—			10.00		
TOTAL POINTS GAINED FOR MILK	105.89			90.72			83.45			74.50		
Points for time since Calving	0.1			—			2.3			2.8		
TOTAL POINTS GAINED	**105.99**			**90.72**			**85.75**			**77.30**		
Points gained for Milk per 1,000 lbs. live weight	87.22			89.82			69.31			75.10		
Points for time since Calving	0.1			—			2.3			2.8		
Total Points per 1,000 lbs. live weight	87.32			89.82			71.61			77.90		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			Highly Commended		

Class 17.—RED POLL HEIFER (Born on or after 1st August, 1932)—*Continued.*

Number	235			236			237			238		
Name	Foxearth Bella 2nd.			Mistley Lilac 2nd.			Abbeycombe Rosina.			Abbeycombe Heather.		
Born	Feb. 23, 1933.			Dec. 25, 1932.			Aug. 7, 1932.			Sept. 2, 1932.		
Live weight, in lbs.	1,280			1,051			1,039			1,010		
Last Calved	Oct. 7.			Sept. 1.			Aug. 31.			Sept. 13.		
Days since Calving	14			50			51			38		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	6.9	6.7	6.6	15.3	14.7	14.0	20.2	20.6	19.1	17.7	16.4	18.1
Weight of Milk, 2nd day	6.8	6.6	6.8	15.5	15.0	14.3	21.9	20.4	18.9	16.6	16.7	15.7
Total	13.7	13.3	13.4	30.8	29.7	28.3	42.1	41.0	38.0	34.3	33.1	33.8
Average	6.85	6.65	6.7	15.4	14.85	14.15	21.05	20.5	19.0	17.15	16.55	16.9
Percentage Composition of the Milk. Fat	5.17	4.88	4.58	4.00	4.18	3.82	3.25	3.54	3.30	3.82	3.74	4.39
Percentage Composition of the Milk. Solids other than Fat	9.09	9.08	9.14	9.38	9.44	9.48	9.07	9.32	9.08	9.34	9.26	8.81
Percentage Composition of the Milk. Total Solids	14.26	13.96	13.72	13.38	13.62	13.30	12.32	12.86	12.38	13.16	13.00	13.20
Actual weight of Fat, in lbs.	0.354	0.325	0.307	0.616	0.621	0.541	0.684	0.726	0.627	0.655	0.619	0.742
Actual weight of Solids other than Fat, in lbs.	0.62	0.60	0.61	1.44	1.40	1.34	1.91	1.91	1.73	1.60	1.53	1.49
Points—												
For weight of Milk (lbs.)	20.20			44.40			60.55			50.60		
For weight of Fat (lbs. × 20)	19.72			35.56			40.74			40.32		
For weight of Solids other than Fat (lbs. × 4)	7.32			16.72			22.20			18.48		
Total Points for Milk	47.24			96.68			123.49			109.40		
Deductions	—			—			—			—		
Total Points Gained for Milk	47.24			96.68			123.49			109.40		
Points for time since Calving	—			1.0			1.1			—		
TOTAL POINTS GAINED	**47.24**			**97.68**			**124.59**			**109.40**		
Points gained for Milk per 1,000 lbs. live weight	36.91			91.99			118.85			108.32		
Points for time since Calving	—			1.0			1.1			—		
Total Points per 1,000 lbs. live weight	36.91			92.99			119.95			108.32		
Remarks and Awards				Highly Commended.			1st Prize.			2nd Prize.		

CLASS 17.—RED POLL HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	239			241			243		
Name	Hatherton Davy.			Hatherton Diamond.			Ashmoor Daisy.		
Born	Nov. 14, 1932			Oct. 30, 1932.			Feb. 12, 1933.		
Live weight, in lbs.	971			843			956		
Last Calved	Aug. 18.			Sept. 12.			July 19.		
Days since Calving	64			39			94		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	17.5	14.5	15.8	14.4	13.0	13.2	11.1	13.2	12.2
Weight of Milk, 2nd day	15.5	15.1	16.0	12.8	13.3	12.5	11.8	12.3	12.0
Total	33.0	29.6	31.8	27.2	26.3	25.7	22.9	25.5	24.2
Average	16.5	14.8	15.9	13.6	13.15	12.85	11.45	12.75	12.10
Percentage Composition of the Milk. Fat	3.65	3.62	3.35	3.63	3.88	3.59	3.68	4.24	4.73
Percentage Composition of the Milk. Solids other than Fat	9.33	9.28	8.91	9.47	9.46	9.33	9.58	9.34	9.51
Percentage Composition of the Milk. Total Solids	12.98	12.90	12.26	13.10	13.34	12.92	13.26	13.58	14.24
Actual weight of Fat, in lbs.	0.602	0.536	0.533	0.494	0.510	0.461	0.421	0.541	0.572
Actual weight of Solids other than Fat, in lbs. ...	1.54	1.37	1.42	1.29	1.24	1.20	1.10	1.19	1.15
Points—									
For weight of Milk (lbs.)	47.20			39.60			36.30		
For weight of Fat (lbs. × 20)	33.42			29.30			30.68		
For weight of Solids other than Fat (lbs. × 4) ...	17.32			14.92			13.76		
Total Points for Milk	97.94			83.82			80.74		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	97.94			83.82			80.74		
Points for time since Calving ...	2.4			—			5.4		
TOTAL POINTS GAINED ...	**100.34**			**83.82**			**86.14**		
Points gained for Milk per 1,000 lbs. live weight ...	100.87			99.43			84.46		
Points for time since Calving	2.4			—			5.4		
Total Points per 1,000 lbs. live weight	103.27			99.43			89.86		
Remarks and Awards	Reserve.			Highly Commended.			Highly Commended.		

CLASS 18.—WELSH BLACK COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 7,000 LBS. AT FIVE YEARS OLD OR OVER, OR 5,250 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number ...	246			247			249			251		
Name ...	Snowdon Fuchsia.			Snowdon Bronwen 3rd.			Grace.			Llanychan Tetsi.		
Born ...	July 27, 1931.			April 17, 1929.			Aug. 5, 1930.			Aug. 31, 1928.		
Live weight, in lbs. ...	1,128			1,184			1,380			1,194		
Last Calved ...	Sept. 14.			Aug. 29.			Sept. 18.			Sept. 14.		
Days since Calving ...	37			53			33			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	13.5	13.6	14.3	12.2	12.4	12.0	24.4	24.3	24.9	15.6	19.1	17.6
Weight of Milk, 2nd day ...	14.8	14.4	13.5	13.1	12.0	12.1	16.4	24.7	20.6	18.8	18.2	18.7
Total ...	28.3	28.0	27.8	25.3	24.4	24.1	40.8	49.0	45.5	34.4	37.3	36.3
Average ...	14.15	14.0	13.9	12.65	12.2	12.05	20.4	24.5	22.75	17.2	18.65	18.15
Percentage Composition of the Milk. Fat ...	4.59	5.05	4.57	3.74	4.77	5.05	4.31	4.61	6.21	4.15	4.32	3.86
Percentage Composition of the Milk. Solids other than Fat ...	8.93	8.79	8.67	9.32	8.73	8.99	9.39	9.07	8.83	9.49	9.22	9.10
Percentage Composition of the Milk. Total Solids ...	13.52	13.84	13.24	13.06	13.50	14.04	13.70	13.68	15.04	13.64	13.54	12.96
Actual weight of Fat, in lbs. ...	0.649	0.707	0.635	0.473	0.582	0.609	0.879	1.129	1.413	0.714	0.806	0.701
Actual weight of Solids other than Fat, in lbs. ...	1.26	1.23	1.21	1.18	1.07	1.08	1.92	2.22	2.01	1.63	1.72	1.65
Points—												
For weight of Milk (lbs.) ...	42.05			36.90			67.65			54.00		
For weight of Fat (lbs. × 20) ...	39.82			33.28			68.42			44.42		
For weight of Solids other than Fat (lbs. × 4) ...	14.80			13.32			24.60			20.00		
Total Points for Milk ...	96.67			83.50			160.67			118.42		
Deductions ...	—			—			—					
TOTAL POINTS GAINED FOR MILK	96.67			83.50			160.67			118.42		
Points for time since Calving ...	—			1.3			—			—		
TOTAL POINTS GAINED ...	**96.67**			**84.80**			**160.67**			**118.42**		
Points gained for Milk per 1,000 lbs. live weight ...	85.70			70.52			116.43			99.18		
Points for time since Calving ...	—			1.3			—			—		
Total Points per 1,000 lbs. live weight ...	85.70			71.82			116.43			99.18		
Remarks and Awards ...	Reserve.						1st Prize.			3rd Prize.		

CLASS 18.—WELSH BLACK COW—*Continued.*

Number	252			253		
Name	Llanychan Mwynder.			Gwern Endeavour.		
Born	Oct. 3, 1926.			June 8, 1929.		
Live weight, in lbs.	1,301			1,418		
Last Calved	Sept. 7.			Oct. 7.		
Days since Calving	44			14		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.7	11.6	11.5	14.0	16.7	16.9
Weight of Milk, 2nd day	12.9	12.8	13.4	17.3	16.2	16.6
Total	24.6	24.4	24.9	31.3	32.9	33.5
Average	12.3	12.2	12.45	15.65	16.45	16.75
Percentage Composition of the Milk. Fat	4.31	3.89	4.11	4.43	5.75	5.83
Percentage Composition of the Milk. Solids other than Fat	9.39	9.31	9.35	9.95	9.69	9.15
Percentage Composition of the Milk. Total Solids	13.70	13.20	13.46	14.38	15.44	14.98
Actual weight of Fat, in lbs.	0.530	0.475	0.512	0.693	0.946	0.977
Actual weight of Solids other than Fat, in lbs. ...	1.15	1.14	1.16	1.56	1.59	1.53
Points—						
For weight of Milk (lbs.)	36.95			48.85		
For weight of Fat (lbs. × 20)	30.34			52.32		
For weight of Solids other than Fat (lbs. × 4) ...	13.80			18.72		
Total Points for Milk	81.09			119.89		
Deductions	—			—		
TOTAL POINTS GAINED FOR MILK	81.09			119.89		
Points for time since Calving ...	0.4			—		
TOTAL POINTS GAINED ...	**81.49**			**119.89**		
Points gained for Milk per 1,000 lbs. live weight ...	62.33			84.55		
Points for time since Calving	0.4			—		
Total Points per 1,000 lbs. live weight	62.73			84.55		
Remarks and Awards				2nd Prize.		

CLASS 19.—AYRSHIRE COW, ENTERED IN THE HERD BOOK OR APPENDICES. BORN ON OR PREVIOUS TO 1ST AUGUST, 1930. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	254			255			258			260		
Name	Bargower Miss Donald 3rd.			Bargower Miss Donald 5th.			South Craig Miss Flora.			Thornhill Mermaid 2nd.		
Born	Feb. 13, 1928.			Mar. 12, 1930.			Dec. 11, 1927.			May 19, 1929.		
Live weight, in lbs.	1,237			1,341			1,172			1,212		
Last Calved	Sept. 14.			Sept. 26.			Sept. 12.			Oct. 2.		
Days since Calving	37			25			39			19		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	25.2	26.0	23.6	20.0	21.1	20.3	18.2	18.4	18.7	25.5	25.2	26.2
Weight of Milk, 2nd day	24.6	24.1	24.3	19.6	20.0	19.9	20.3	20.3	19.6	25.4	26.8	27.4
Total	49.8	50.1	47.9	39.6	41.1	40.2	38.5	38.7	38.3	50.9	52.0	53.6
Average	24.9	25.05	23.95	19.8	20.55	20.1	19.25	19.35	19.15	25.45	26.0	26.8
Percentage Composition of the Milk. Fat	3.78	4.29	4.47	4.18	4.46	4.86	4.77	5.62	4.56	3.96	4.50	3.95
Percentage Composition of the Milk. Solids other than Fat	9.28	8.79	8.63	9.26	9.22	9.00	9.37	9.06	8.78	9.04	8.96	8.77
Percentage Composition of the Milk. Total Solids	13.06	13.08	13.10	13.44	13.68	13.86	14.14	14.68	13.34	13.00	13.46	12.72
Actual weight of Fat, in lbs.	0.941	1.075	1.071	0.828	0.917	0.977	0.918	1.087	0.873	1.008	1.170	1.059
Actual weight of Solids other than Fat, in lbs. ...	2.31	2.20	2.07	1.83	1.89	1.81	1.80	1.75	1.68	2.30	2.33	2.35
Points—												
For weight of Milk (lbs.)	73 90			60 45			57 75			78 25		
For weight of Fat (lbs. × 20)	61 74			54 44			57 56			64 74		
For weight of Solids other than Fat (lbs. × 4) ...	26 32			22 12			20 92			27 92		
Total Points for Milk	161 96			137 01			136 23			170 91		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	161.96			137.01			136.23			170.91		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**161.96**			**137.01**			**136.23**			**170.91**		
Points gained for Milk per 1,000 lbs. live weight ...	130.93			102.17			116.24			141.01		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	130.93			102.17			116.24			141.01		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			1st Prize.		

CLASS 19.—AYRSHIRE COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	262			263			265			268		
Name	Barr Kamela.			Compton Dahlia.			Lesserlinn Rosebud 2nd.			Wilmcote Anabelle.		
Born	May 1, 1927.			Apr. 21, 1929.			May 14, 1930.			Oct. 5, 1929.		
Live weight, in lbs.	1,257			1,201			1,232			1,327		
Last Calved	Oct. 2.			Sept. 18.			Sept. 17.			Sept. 14.		
Days since Calving	19			33			34			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.0	22.6	22.5	22.2	21.4	14.1	26.6	22.7	23.6	22.1	23.0	23.2
Weight of Milk, 2nd day	22.5	21.6	21.7	24.6	19.7	21.7	23.6	24.1	23.5	22.6	23.3	23.2
Total	44.5	44.2	44.2	46.8	41.1	35.8	50.2	46.8	47.1	44.7	46.3	46.4
Average	22.25	22.1	22.1	23.4	20.55	17.9	25.1	23.4	23.55	22.35	23.15	23.2
Percentage Composition of the Milk. Fat	4.26	4.00	4.50	3.61	4.40	3.14	4.43	3.81	3.71	3.69	3.53	3.61
Percentage Composition of the Milk. Solids other than Fat	9.38	9.24	9.32	9.51	9.30	9.58	9.41	8.63	8.89	8.99	8.69	8.53
Percentage Composition of the Milk. Total Solids	13.64	13.24	13.82	13.12	13.70	12.72	13.84	12.44	12.60	12.68	12.22	12.14
Actual weight of Fat, in lbs.	0.948	0.884	0.995	0.845	0.904	0.562	1.112	0.892	0.874	0.825	0.817	0.838
Actual weight of Solids other than Fat, in lbs. ...	2.09	2.04	2.06	2.23	1.91	1.71	2.36	2.02	2.09	2.01	2.01	1.98
Points—												
For weight of Milk (lbs.)	66.45			61.85			72.05			68.70		
For weight of Fat (lbs. × 20)	56.54			46.22			57.56			49.60		
For weight of Solids other than Fat (lbs. × 4) ...	24.76			23.40			25.88			24.00		
Total Points for Milk	147.75			131.47			155.49			142.30		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	147.75			131.47			155.49			142.30		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**147.75**			**131.47**			**155.49**			**142.30**		
Points gained for Milk per 1,000 lbs. live weight ...	117.54			109.47			126.20			107.23		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	117.54			109.47			126.20			107.23		
Remarks and Awards	Highly Commended.			Highly Commended.			Reserve.			Highly Commended.		

CLASS 19.—AYRSHIRE COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

CLASS 20.—AYRSHIRE COW, ENTERED IN THE HERD BOOK OR APPENDICES. BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932.

Number	269			271			272			275		
Name	Loaninghead May.			Bargower Miss Donald 7th.			Seckford Empress.			Stannock Whitie 5th.		
Born	Apr. 4, 1927.			Oct. 10, 1931.			Jan. 3, 1931.			Jan. 5, 1931.		
Live weight, in lbs.	1,182			1,335			1,207			1,256		
Last Calved	Oct. 4.			Oct. 5.			Sept. 25.			Sept. 24.		
Days since Calving	17			16			26			27		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	23.0	22.9	23.1	22.1	21.2	21.3	21.9	21.7	19.5	23.6	24.1	22.1
Weight of Milk, 2nd day	24.9	26.2	26.1	20.7	19.9	21.1	19.3	20.1	20.0	23.1	23.0	20.3
Total	47.9	49.1	49.2	42.8	40.1	42.4	41.2	41.8	39.5	46.7	47.1	42.4
Average	23.95	24.55	24.6	21.4	20.55	21.2	20.6	20.9	19.75	23.35	23.55	21.2
Percentage Composition of the Milk. Fat	5.00	3.78	4.49	5.39	5.43	4.68	4.02	3.94	3.74	3.29	4.85	3.42
Percentage Composition of the Milk. Solids other than Fat	8.84	8.74	8.61	9.91	10.19	9.68	9.22	9.28	9.36	9.07	9.03	9.02
Percentage Composition of the Milk. Total Solids	13.84	12.52	13.10	15.30	15.62	14.36	13.24	13.22	13.10	12.36	13.88	12.44
Actual weight of Fat, in lbs.	1.198	0.928	1.105	1.153	1.116	0.992	0.828	0.823	0.739	0.768	1.142	0.725
Actual weight of Solids other than Fat, in lbs. ...	2.12	2.15	2.12	2.12	2.09	2.05	1.90	1.94	1.85	2.12	2.13	1.91
Points— For weight of Milk (lbs.)	73.10			63.15			61.25			68.10		
For weight of Fat (lbs. × 20)	64.62			65.22			47.80			52.70		
For weight of Solids other than Fat (lbs. × 4)	25.56			25.04			22.76			24.64		
Total Points for Milk	163.28			153.41			131.81			145.44		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	163.28			153.41			131.81			145.44		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED ...	**163.28**			**153.41**			**131.81**			**145.44**		
Points gained for Milk per 1,000 lbs. live weight ...	138.14			114.91			109.20			115.80		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	138.14			114.91			109.20			115.80		
Remarks and Awards	2nd Prize.			2nd Prize.			Highly Commended.			3rd Prize.		

CLASS 20.—AYRSHIRE COW (BORN AFTER 1ST AUGUST, 1930, AND PREVIOUS TO 1ST AUGUST, 1932)—*Continued.*

Number ...	277			278			279			280		
Name ...	Cowichan Fleckie.			Woodland Teresa.			Relief Sprightly 2nd.			Dalpeddar Whisper.		
Born ...	Feb. 26, 1932.			Jan. 9, 1931.			July 27, 1931.			Sept. 29, 1931.		
Live weight, in lbs. ...	1,004			1,054			1,204			1,018		
Last Calved ...	Oct. 6.			Sept. 27.			Sept. 26.			Sept. 1.		
Days since Calving ...	15			24			25			50		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	22.7	21.5	22.6	21.1	24.0	22.0	24.9	22.3	21.0	27.8	26.4	25.0
Weight of Milk, 2nd day ...	21.4	23.3	21.0	22.8	22.2	22.1	20.2	15.5	18.5	27.2	27.8	29.1
Total ...	44.1	44.8	43.6	43.9	46.2	44.1	45.1	37.8	39.5	55.0	54.2	54.1
Average ...	22.05	22.4	21.8	21.95	23.1	22.05	22.55	18.9	19.75	27.5	27.1	27.05
Percentage Composition of the Milk. Fat ...	3.44	3.61	4.19	3.00	3.91	2.45	3.81	4.46	4.69	3.58	3.60	2.82
Percentage Composition of the Milk. Solids other than Fat ...	9.52	9.33	9.45	9.38	9.11	9.21	9.01	9.20	9.21	9.24	9.26	9.10
Percentage Composition of the Milk. Total Solids ...	12.96	12.94	13.64	12.38	13.02	11.66	12.82	13.66	13.90	12.82	12.86	11.92
Actual weight of Fat, in lbs. ...	0.759	0.809	0.913	0.659	0.903	0.540	0.859	0.843	0.926	0.985	0.976	0.763
Actual weight of Solids other than Fat, in lbs. ...	2.10	2.09	2.06	2.06	2.10	2.03	2.03	1.74	1.82	2.54	2.51	2.46
Points—												
For weight of Milk (lbs.) ...	66.25			67.10			61.20			81.65		
For weight of Fat (lbs. × 20) ...	49.62			42.04			52.56			54.48		
For weight of Solids other than Fat (lbs. × 4) ...	25.00			24.76			22.36			30.04		
Total Points for Milk ...	140.87			133.90			136.12			166.17		
Deductions ...	—			10.00			—			10.00		
TOTAL POINTS GAINED FOR MILK	140.87			123.90			136.12			156.17		
Points for time since Calving ...	—			—			—			1.0		
TOTAL POINTS GAINED ...	**140.87**			**123.90**			**136.12**			**157.17**		
Points gained for Milk per 1,000 lbs. live weight ...	140.30			117.55			113.06			153.41		
Points for time since Calving ...	—			—			—			1.0		
Total Points per 1,000 lbs. live weight ...	140.30			117.55			113.06			154.41		
Remarks and Awards ...	Reserve.			Highly Commended.			Highly Commended.			1st Prize.		

CLASS 21.—AYRSHIRE HEIFER, REGISTERED OR ELIGIBLE FOR REGISTRATION IN THE HERD BOOK OR APPENDICES. BORN ON OR AFTER 1ST AUGUST, 1932, AND HAVING PRODUCED ONLY ONE CALF.

Number	281			282			285			286		
Name	Bargower Queenie 6th.			Bargower Silverbell 14th.			Auchengibbert Ena.			Auchengibbert Etta 8th.		
Born	Oct. 1, 1932.			Sept. 29, 1932.			April 3, 1933.			Mar. 4, 1933.		
Live weight, in lbs.	1,220			1,122			951			972		
Last Calved	Sept. 19.			Sept. 23.			Sept. 16.			Sept. 14.		
Days since Calving	32			28			35			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.5	21.2	20.6	21.5	20.5	20.8	15.8	16.6	16.1	16.4	16.7	16.4
Weight of Milk, 2nd day	20.3	21.9	20.8	21.0	19.9	22.3	15.1	15.0	15.3	15.0	17.0	16.4
Total	41.8	43.1	41.4	42.5	40.4	43.1	30.9	31.6	31.4	31.4	33.7	32.8
Average	20.9	21.55	20.7	21.25	20.2	21.55	15.45	15.8	15.7	15.7	16.85	16.4
Percentage Composition of the Milk. Fat	3.82	4.83	4.69	5.13	5.16	4.10	3.62	4.50	4.41	3.22	5.52	3.94
Percentage Composition of the Milk. Solids other than Fat	8.98	8.95	8.53	8.95	8.76	8.74	9.16	9.32	8.81	8.98	9.38	9.06
Percentage Composition of the Milk. Total Solids	12.80	13.78	13.22	14.08	13.92	12.84	12.78	13.82	13.22	12.20	14.90	13.00
Actual weight of Fat, in lbs.	0.798	1.041	0.971	1.090	1.042	0.884	0.559	0.711	0.692	0.506	0.930	0.646
Actual weight of Solids other than Fat, in lbs.	1.88	1.93	1.77	1.90	1.77	1.88	1.42	1.47	1.38	1.41	1.58	1.49
Points—												
For weight of Milk (lbs.)	63.15			63.00			46.95			48.95		
For weight of Fat (lbs. × 20)	56.20			60.32			39.24			41.64		
For weight of Solids other than Fat (lbs. × 4)	22.32			22.20			17.08			17.92		
Total Points for Milk	141.67			145.52			103.27			108.51		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	141.67			145.52			103.27			108.51		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED	**141.67**			**145.52**			**103.27**			**108.51**		
Points gained for Milk per 1,000 lbs. live weight	116.12			129.70			108.59			111.64		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	116.12			129.70			108.59			111.64		
Remarks and Awards	2nd Prize.			1st Prize.			Highly Commended.			Reserve.		

CLASS 21.—AYRSHIRE HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	287			290			298			299		
Name	Kirkhill Betsy 2nd.			Linnhead May Queen 4th.			Meadowbank Betty.			Meadowbank Braw Lass.		
Born	Sept. 2, 1932.			Feb. 1, 1933.			Mar. 13, 1933.			Oct. 16 ,1932.		
Live weight, in lbs.	1,081			1,120			1,104			1,176		
Last Calved	Sept. 15.			Sept. 11.			Sept. 11.			Sept. 26.		
Days since Calving	36			40			40			25		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.2	21.5	19.9	15.1	15.6	14.5	15.7	17.5	9.1	18.2	15.9	15.4
Weight of Milk, 2nd day	18.5	20.0	21.3	14.3	15.6	14.1	25.4	19.4	19.4	17.4	18.5	16.4
Total	37.7	41.5	41.2	29.4	31.2	28.6	41.1	36.9	28.5	35.6	34.4	31.8
Average	18.85	20.75	20.6	14.7	15.6	14.3	20.55	18.45	14.25	17.8	17.2	15.9
Percentage Composition of the Milk. Fat	3.16	4.57	2.22	4.34	5.02	4.79	1.65	3.58	1.73	3.83	3.05	2.83
Percentage Composition of the Milk. Solids other than Fat	9.12	9.19	9.16	9.36	9.44	9.27	9.21	9.58	9.33	8.85	9.15	9.13
Percentage Composition of the Milk. Total Solids	12.28	13.76	11.38	13.70	14.46	14.06	10.86	13.16	11.06	12.68	12.20	11.96
Actual weight of Fat, in lbs.	0.596	0.948	0.457	0.638	0.783	0.685	0.339	0.661	0.247	0.682	0.525	0.450
Actual weight of Solids other than Fat, in lbs. ...	1.72	1.91	1.89	1.38	1.47	1.33	1.89	1.77	1.33	1.58	1.57	1.45
Points—												
For weight of Milk (lbs.)	60.20			44.60			53.25			50.90		
For weight of Fat (lbs. × 20)	40.02			42.12			24.94			33.14		
For weight of Solids other than Fat (lbs. × 4) ...	22.08			16.72			19.96			18.40		
Total Points for Milk	122.30			103.44			98.15			102.44		
Deductions	10.00			—			20.00			10.00		
TOTAL POINTS GAINED FOR MILK	112.30			103.44			78.15			92.44		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**112.30**			**103.44**			**78.15**			**92.44**		
Points gained for Milk per 1,000 lbs. live weight ...	103.89			92.36			70.79			78.61		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	103.89			92.36			70.79			78.61		
Remarks and Awards	4th Prize.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 21.—AYRSHIRE HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	300			303			304		
Name	Kilfillan Rosette.			Wilmcote Anabelle 2nd.			Darlingscott Minx.		
Born	Mar. 10, 1933.			Oct. 2, 1933.			Aug. 28, 1932.		
Live weight, in lbs.	1,131			1,038			1,096		
Last Calved	Sept. 26.			Sept. 22.			Sept. 13.		
Days since Calving	25			29			38		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.3	16.8	16.0	14.5	15.8	15.4	11.9	11.3	11.6
Weight of Milk, 2nd day	15.6	15.4	16.1	15.5	15.1	15.4	11.7	11.3	10.4
Total	31.9	32.2	32.1	30.0	30.9	30.8	23.6	22.6	22.0
Average	15.95	16.1	16.05	15.0	15.45	15.4	11.8	11.3	11.0
Percentage Composition of the Milk. Fat	3.91	4.35	4.14	3.04	4.14	4.09	3.19	3.35	4.11
Percentage Composition of the Milk. Solids other than Fat	9.27	9.59	9.10	9.22	9.10	9.13	9.13	9.09	8.81
Percentage Composition of the Milk. Total Solids	13.18	13.94	13.24	12.26	13.24	13.22	12.32	12.44	12.92
Actual weight of Fat, in lbs.	0.624	0.700	0.664	0.456	0.640	0.630	0.376	0.379	0.452
Actual weight of Solids other than Fat, in lbs. ...	1.48	1.54	1.46	1.38	1.41	1.41	1.08	1.03	0.97
Points—									
For weight of Milk (lbs.)	48.10			45.85			34.10		
For weight of Fat (lbs. × 20)	39.76			34.52			24.14		
For weight of Solids other than Fat (lbs. × 4) ...	17.92			16.80			12.32		
Total Points for Milk	105.78			97.17			70.56		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	105.78			97.17			70.56		
Points for time since Calving ...	—			—			—		
TOTAL POINTS GAINED ...	**105.78**			**97.17**			**70.56**		
Points gained for Milk per 1,000 lbs. live weight ...	93.53			93.61			64.38		
Points for time since Calving	—			—			—		
Total Points per 1,000 lbs. live weight	93.53			93.61			64.38		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 21.—AYRSHIRE HEIFER (BORN ON OR AFTER 1ST AUGUST, 1932)—*Continued.*

Number	305			307		
Name	Relief Joan.			Howwell Gloria.		
Born	Mar. 4, 1933.			Dec. 14, 1932.		
Live weight, in lbs.	1,193			1,176		
Last Calved	Sept. 23.			Sept. 25.		
Days since Calving	28			26		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.4	16.0	15.2	17.7	17.3	16.8
Weight of Milk, 2nd day	14.8	16.9	15.6	17.9	19.0	18.1
Total	31.2	32.9	30.8	35.6	36.3	34.9
Average	15.6	16.45	15.4	17.8	18.15	17.45
Percentage Composition of the Milk. Fat	3.49	4.20	3.74	4.70	4.18	4.85
Percentage Composition of the Milk. Solids other than Fat	9.55	9.62	9.40	9.38	9.56	9.53
Percentage Composition of the Milk. Total Solids	13.04	13.82	13.14	14.08	13.74	14.38
Actual weight of Fat, in lbs.	0.544	0.691	0.576	0.837	0.759	0.846
Actual weight of Solids other than Fat, in lbs.	1.49	1.58	1.45	1.67	1.74	1.66
Points—						
For weight of Milk (lbs.)	47.45			53.40		
For weight of Fat (lbs. × 20)	36.22			48.84		
For weight of Solids other than Fat (lbs. × 4)	18.08			20.28		
Total Points for Milk	101.75			122.52		
Deductions	—			—		
TOTAL POINTS GAINED FOR MILK	101.75			122.52		
Points for time since Calving	—			—		
TOTAL POINTS GAINED	**101.75**			**122.52**		
Points gained for Milk per 1,000 lbs. live weight	85.29			104.18		
Points for time since Calving	—			—		
Total Points per 1,000 lbs. live weight	85.29			104.18		
Remarks and Awards	Highly Commended.			3rd Prize.		

Class 22.—GUERNSEY COW, entered in or accepted for the Herd Book. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.

Number	310			311			312			315		
Name	Dairymaid of Riduna.			Lenore's Polly of Cote Grange.			Silverstead Nina.			Valence Lavender 2nd.		
Born	Jan. 17. 1930.			May 6, 1930.			Aug. 10, 1929.			Aug. 24, 1927.		
Live weight, in lbs.	1,285			1,170			1,130			1,043		
Last Calved	Sept. 30.			June 30.			Sept. 23.			Feb. 28.		
Days since Calving	21			113			28			235		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.1	20.5	17.9	15.0	14.8	14.8	15.8	15.2	16.4	17.4	13.5	8.0
Weight of Milk, 2nd day	17.2	16.0	17.1	13.8	14.0	13.9	15.6	14.8	14.4	10.0	11.3	13.4
Total	38.3	36.5	35.0	28.8	28.8	28.7	31.4	30.0	30.8	27.4	24.8	21.4
Average	19.15	18.25	17.5	14.4	14.4	14.35	15.7	15.0	15.4	13.7	12.4	10.7
Percentage Composition of the Milk. Fat	5.33	5.95	6.88	4.38	4.58	4.20	5.73	5.27	5.59	3.76	4.36	5.17
Percentage Composition of the Milk. Solids other than Fat	9.35	9.11	9.18	9.06	8.84	8.76	9.85	9.55	9.59	8.98	8.60	8.81
Percentage Composition of the Milk. Total Solids	14.68	15.06	16.06	13.44	13.42	12.96	15.58	14.82	15.18	12.74	12.96	14.04
Actual weight of Fat, in lbs.	1.021	1.086	1.204	0.631	0.660	0.603	0.900	0.791	0.861	0.515	0.541	0.553
Actual weight of Solids other than Fat, in lbs. ...	1.79	1.66	1.61	1.30	1.27	1.26	1.55	1.43	1.48	1.23	1.07	0.95
Points— For weight of Milk (lbs.)	54.90			43.15			46.10			36.80		
For weight of Fat (lbs. × 20)	66.22			37.88			51.04			32.18		
For weight of Solids other than Fat (lbs. × 4) ...	20.24			15.32			17.84			13.00		
Total Points for Milk	141.36			96.35			114.98			81.98		
Deductions	—			—			—			—		
Total Points Gained for Milk	141.36			96.35			114.98			81.98		
Points for time since Calving ...	—			7.3			—			12.0		
TOTAL POINTS GAINED ...	**141.36**			**103.65**			**114.98**			**93.98**		
Points gained for Milk per 1,000 lbs. live weight ...	110.01			82.35			101.75			78.60		
Points for time since Calving	—			7.3			—			12.0		
Total Points per 1,000 lbs. live weight	110.01			89.65			101.75			90.60		
Remarks and Awards	1st Prize.			Highly Commended.			Reserve.			Highly Commended.		

CLASS 22.—GUERNSEY COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	316			317			318			319		
Name	Mapleton Mermaid.			Bon Espoir Lily 4th.			Rex's Primrose of Maison de Bas.			May Boy Daisy of the Blanche.		
Born	Sept. 24, 1929.			Feb. 14, 1928.			Sept. 22, 1927.			June 6, 1924.		
Live weight, in lbs.	1,169			1,112			1,184			1,069		
Last Calved	Apr. 30.			July 19.			June 7.			June 25.		
Days since Calving	174			94			136			118		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.4	17.8	17.9	17.3	17.1	16.8	16.5	16.0	16.7	16.1	20.2	18.9
Weight of Milk, 2nd day	16.0	16.1	14.6	16.7	16.0	18.5	16.1	14.9	14.0	16.3	15.8	16.4
Total	34.4	33.9	32.5	34.0	33.1	35.3	32.6	30.9	30.7	32.4	36.0	35.3
Average	17.2	16.95	16.25	17.0	16.55	17.65	16.3	15.45	15.35	16.2	18.0	17.65
Percentage Composition of the Milk. Fat	2.39	3.14	4.38	4.16	4.12	4.05	4.18	4.78	4.90	2.94	4.61	4.14
Solids other than Fat	9.23	9.40	9.08	9.36	9.18	9.17	9.34	8.76	8.90	9.10	9.13	8.86
Total Solids	11.62	12.54	13.06	13.52	13.30	13.22	13.52	13.54	13.80	12.04	13.74	13.00
Actual weight of Fat, in lbs.	0.411	0.532	0.712	0.707	0.682	0.715	0.681	0.739	0.752	0.476	0.830	0.731
Actual weight of Solids other than Fat, in lbs.	1.59	1.59	1.48	1.59	1.52	1.62	1.52	1.35	1.37	1.47	1.64	1.56
Points—												
For weight of Milk (lbs.)	50.40			51.20			47.10			51.85		
For weight of Fat (lbs. x 20)	33.10			42.08			43.44			40.74		
For weight of Solids other than Fat (lbs. x 4)	18.64			18.92			16.96			18.68		
Total Points for Milk	102.14			112.20			107.50			111.27		
Deductions	10.00			—			—			10.00		
TOTAL POINTS GAINED FOR MILK	92.14			112.20			107.50			101.27		
Points for time since Calving	12.0			5.4			9.6			7.8		
TOTAL POINTS GAINED	**104.14**			**117.60**			**117.10**			**109.07**		
Points gained for Milk per 1,000 lbs. live weight	78.82			100.90			90.79			94.73		
Points for time since Calving	12.0			5.4			9.6			7.8		
Total Points per 1,000 lbs. live weight	90.82			106.30			100.39			102.53		
Remarks and Awards	Highly Commended.			2nd Prize.			3rd Prize.			Highly Commended.		

CLASS 23.—GUERNSEY COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1930, AND WHICH HAS PRODUCED TWO OR MORE CALVES.

Number	320			322			323			325		
Name	Rosey of Goodnestone 62nd.			Primrose Poltimore of Payhay.			Molly 2nd of Crabwood.			Peters Jennette.		
Born	Feb. 1, 1932.			June 13, 1932.			July 3, 1931.			Dec. 28, 1931.		
Live weight, in lbs.	1,040			1,076			826			1,056.		
Last Calved	June 23.			Sept. 12.			Oct. 4.			June 10		
Days since Calving	120			39			17			133		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.9	9.8	10.7	18.7	19.8	21.1	15.8	17.5	17.5	19.5	14.7	14.4
Weight of Milk, 2nd day	10.5	10.4	9.3	20.6	21.4	20.9	14.9	17.0	17.3	12.6	15.0	14.5
Total	22.4	20.2	20.0	39.3	41.2	42.0	30.7	34.5	34.8	32.1	29.7	28.9
Average	11.2	10.1	10.0	19.65	20.6	21.0	15.35	17.25	17.4	16.05	14.85	14.45
Percentage Composition of the Milk. Fat	4.80	5.27	4.84	4.99	3.17	3.53	5.69	5.60	4.14	4.73	5.58	5.59
Percentage Composition of the Milk. Solids other than Fat	9.04	9.09	8.84	9.63	9.61	9.15	9.97	9.54	9.14	8.81	8.60	8.87
Percentage Composition of the Milk. Total Solids	13.84	14.36	13.68	14.62	12.78	12.68	15.66	15.14	13.28	13.54	14.18	14.46
Actual weight of Fat, in lbs.	0.538	0.532	0.484	0.981	0.653	0.741	0.873	0.966	0.720	0.759	0.829	0.808
Actual weight of Solids other than Fat, in lbs.	1.01	0.92	0.88	1.89	1.98	1.92	1.53	1.65	1.59	1.41	1.28	1.28
Points—												
For weight of Milk (lbs.)	31.30			61.25			50.00			45.35		
For weight of Fat (lbs. × 20)	31.08			47.50			51.18			47.92		
For weight of Solids other than Fat (lbs. × 4)	11.24			23.16			19.08			15.88		
Total Points for Milk	73.62			131.91			120.26			109.15		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	73.62			131.91			120.26			109.15		
Points for time since Calving	8.0			—			—			9.3		
TOTAL POINTS GAINED	**81.62**			**131.91**			**120.26**			**118.45**		
Points gained for Milk per 1,000 lbs. live weight	70.79			122.59			145.59			103.36		
Points for time since Calving	8.0			—			—			9.3		
Total Points per 1,000 lbs. live weight	78.79			122.59			145.59			112.66		
Remarks and Awards	Highly Commended.			1st Prize.			3rd Prize.			Reserve.		

Class 23.—GUERNSEY COW (Born after 1st August, 1930)—*Continued.*

Number	326			327			329			330		
Name	Bladen Meadowsweet 6th.			Galaxy's Lassie Darling of Mapleton.			Bella's Cora 4th of Les Jetteries.			Hewton Lodge Dorine 4th.		
Born	Dec. 25, 1930.			June 5, 1931.			Mar. 25, 1932.			Feb. 21, 1932.		
Live weight, in lbs.	1,172			967			1,089			1,082		
Last Calved	Sept. 2.			July 31.			Aug. 15.			July 26.		
Days since Calving	49			82			67			87		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.1	19.3	19.3	13.6	13.2	13.9	17.8	14.1	16.0	12.6	12.4	12.9
Weight of Milk, 2nd day	20.1	22.0	18.8	12.5	10.3	11.5	14.8	17.3	18.8	12.7	13.8	13.4
Total	38.2	41.3	38.1	26.1	23.5	25.4	32.6	31.4	34.8	25.3	26.2	26.3
Average	19.1	20.65	19.05	13.05	11.75	12.7	16.3	15.7	17.4	12.65	13.1	13.15
Percentage Composition of the Milk. Fat	4.12	3.97	3.85	5.75	4.07	4.23	5.08	4.53	4.32	3.54	4.03	3.02
Percentage Composition of the Milk. Solids other than Fat	9.54	9.35	9.33	9.57	9.55	9.03	9.30	9.47	9.40	9.12	8.99	9.14
Percentage Composition of the Milk. Total Solids	13.66	13.32	13.18	15.32	13.62	13.26	14.38	14.00	13.72	12.66	13.02	12.16
Actual weight of Fat, in lbs.	0.787	0.820	0.733	0.750	0.478	0.537	0.828	0.711	0.752	0.448	0.528	0.397
Actual weight of Solids other than Fat, in lbs.	1.82	1.93	1.78	1.25	1.12	1.15	1.52	1.49	1.64	1.15	1.18	1.20
Points—												
For weight of Milk (lbs.)	58.80			37.50			49.40			38.90		
For weight of Fat (lbs. × 20)	46.80			35.30			45.82			27.46		
For weight of Solids other than Fat (lbs. × 4)	22.12			14.08			18.60			14.12		
Total Points for Milk	127.72			86.88			113.82			80.48		
Deductions	—			—			—			—		
Total Points Gained for Milk	127.72			86.88			113.82			80.48		
Points for time since Calving	0.9			4.2			2.7			4.7		
TOTAL POINTS GAINED	**128.62**			**91.08**			**116.52**			**85.18**		
Points gained for Milk per 1,000 lbs. live weight	108.98			89.84			104.52			74.38		
Points for time since Calving	0.9			4.2			2.7			4.7		
Total Points per 1,000 lbs. live weight	109.88			94.04			107.22			79.08		
Remarks and Awards	2nd Prize.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 23.—GUERNSEY COW (BORN AFTER 1ST AUGUST, 1930)—*Continued.*

CLASS 24.—GUERNSEY HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, AND WHICH HAS PRODUCED HER FIRST AND ONLY CALF AT OR UNDER THE AGE OF TWO YEARS AND NINE MONTHS.

Number	331			334			336			337		
Name	Hartwell Belle of Ellerslie.			Norsebury Rosemary 2nd.			Peters Marcia.			Bladen Gay Lass 2nd.		
Born	Sept. 22, 1930.			Nov. 26, 1932.			Mar. 10, 1933.			Mar 15, 1932.		
Live weight, in lbs.	972			929			866			1,026		
Last Calved	Aug. 15.			Sept. 14.			Sept. 20.			Nov. 19, 1934.		
Days since Calving	67			37			31			336		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	10.4	15.3	11.1	16.1	16.7	15.7	12.8	12.6	11.7	16.9	13.0	15.3
Weight of Milk, 2nd day	15.7	12.3	14.9	16.0	15.7	14.9	11.2	14.0	12.6	14.5	14.7	13.8
Total	26.1	27.6	26.0	32.1	32.4	30.6	24.0	26.6	24.3	31.4	27.7	29.1
Average	13.05	13.8	13.0	16.05	16.2	15.3	12.0	13.3	12.15	15.7	13.85	14.55
Percentage Composition of the Milk. Fat	3.95	5.94	3.26	3.42	4.01	4.17	3.41	4.67	3.85	4.73	4.00	3.63
Percentage Composition of the Milk. Solids other than Fat	9.31	8.82	8.92	9.34	8.79	9.21	9.47	9.09	9.27	9.23	9.10	9.29
Percentage Composition of the Milk. Total Solids	13.26	14.76	12.18	12.76	12.80	13.38	12.88	13.76	13.12	13.96	13.10	12.92
Actual weight of Fat, in lbs.	0.515	0.820	0.424	0.549	0.650	0.638	0.409	0.621	0.468	0.743	0.554	0.528
Actual weight of Solids other than Fat, in lbs.	1.21	1.22	1.16	1.50	1.42	1.41	1.14	1.21	1.13	1.45	1.26	1.35
Points—												
For weight of Milk (lbs.)	39.85			47.55			37.45			44.10		
For weight of Fat (lbs. × 20)	35.18			36.74			29.96			36.50		
For weight of Solids other than Fat (lbs. × 4)	14.36			17.32			13.92			16.24		
Total Points for Milk	89.39			101.61			81.33			96.84		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	89.39			101.61			81.33			96.84		
Points for time since Calving	2.7			—			—			12.0		
TOTAL POINTS GAINED	**92.09**			**101.61**			**81.33**			**108.84**		
Points gained for Milk per 1,000 lbs. live weight	91.97			109.38			93.91			94.39		
Points for time since Calving	2.7			—			—			12.0		
Total Points per 1,000 lbs. live weight	94.67			109.38			93.91			106.39		
Remarks and Awards	Highly Commended.			3rd Prize.			Highly Commended.			2nd Prize.		

Class 24.—GUERNSEY HEIFER—*Continued.*

Number	342			343		
Name	Reading Ina.			Hartwell Queen of North Valley.		
Born	Mar. 6, 1933.			June 26, 1933.		
Live weight, in lbs.	973			868		
Last Calved	May 16.			Sept. 4.		
Days since Calving	158			47		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	17.3	14.8	15.0	10.8	12.8	13.5
Weight of Milk, 2nd day	15.9	16.9	18.0	8.7	13.6	11.7
Total	33.2	31.7	33.0	19.5	26.4	25.2
Average	16.5	15.85	16.5	9.75	13.2	12.6
Percentage Composition of the Milk. Fat	5.44	4.98	4.36	3.49	3.92	6.52
Percentage Composition of the Milk. Solids other than Fat	9.14	9.18	9.08	8.89	8.82	8.70
Percentage Composition of the Milk. Total Solids	14.58	14.16	13.44	12.38	12.74	15.22
Actual weight of Fat, in lbs.	0.903	0.789	0.719	0.340	0.517	0.822
Actual weight of Solids other than Fat, in lbs.	1.52	1.46	1.50	0.87	1.16	1.10
Points—						
For weight of Milk (lbs.)	48.95			35.55		
For weight of Fat (lbs. × 20)	48.22			33.58		
For weight of Solids other than Fat (lbs. × 4)	17.92			12.52		
Total Points for Milk	115.09			81.65		
Deductions	—			—		
TOTAL POINTS GAINED FOR MILK	115.09			81.65		
Points for time since Calving	11.8			0.7		
TOTAL POINTS GAINED	**126.89**			**82.35**		
Points gained for Milk per 1,000 lbs. live weight	118.28			94.07		
Points for time since Calving	11.8			0.7		
Total Points per 1,000 lbs. live weight	130.08			94.77		
Remarks and Awards	1st Prize.			Reserve.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED. ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1930. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	344			345			346			347		
Name	Minterne Mary.			Black Art's Postgirl.			Starting Ruby.			Rainbow.		
Born	Nov. 30, 1928.			Mar. 20, 1928.			July 17, 1929.			June 26, 1929.		
Live weight, in lbs.	1,120			1,110			1,076			878		
Last Calved	Feb. 22.			Mar. 13.			Sept. 24.			May 27.		
Days since Calving	241			222			27			147		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	12.0	16.8	13.3	16.7	15.6	16.3	19.6	18.0	17.2	13.5	15.4	11.5
Weight of Milk, 2nd day	13.7	13.1	13.3	16.4	14.4	15.5	18.2	16.9	17.4	14.4	14.6	13.6
Total	25.7	29.9	26.6	33.1	30.0	31.8	37.8	34.9	34.6	27.9	30.0	25.1
Average	12.85	14.95	13.3	16.55	15.0	15.9	18.9	17.45	17.3	13.95	15.0	12.55
Percentage Composition of the Milk. Fat	4.63	5.93	5.81	4.68	4.31	4.59	4.97	5.00	4.77	3.84	6.90	4.35
Percentage Composition of the Milk. Solids other than Fat	9.79	9.49	9.47	8.68	8.77	8.83	9.41	9.56	9.79	8.92	8.60	9.15
Percentage Composition of the Milk. Total Solids	14.42	15.42	15.28	13.36	13.08	13.42	14.38	14.56	14.56	12.76	15.50	13.50
Actual weight of Fat, in lbs.	0.595	0.887	0.773	0.775	0.647	0.730	0.939	0.873	0.825	0.536	1.035	0.546
Actual weight of Solids other than Fat, in lbs. ...	1.26	1.42	1.26	1.44	1.32	1.40	1.78	1.67	1.69	1.24	1.29	1.15
Points—												
For weight of Milk (lbs.)	41.10			47.45			53.65			41.50		
For weight of Fat (lbs. × 20)	45.10			43.04			52.74			42.34		
For weight of Solids other than Fat (lbs. × 4) ...	15.76			16.64			20.56			14.72		
Total Points for Milk	101.96			107.13			126.95			98.56		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	101.96			107.13			126.95			98.56		
Points for time since Calving ...	12.0			12.0			—			10.7		
TOTAL POINTS GAINED ...	**113.96**			**119.13**			**126.95**			**109.26**		
Points gained for Milk per 1,000 lbs. live weight ...	91.04			96.51			117.98			112.26		
Points for time since Calving	12.0			12.0			—			10.7		
Total Points per 1,000 lbs. live weight	103.04			108.51			117.98			122.96		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.			Highly Commended.		

Class 25.—JERSEY COW, English or Island Bred (Born on or previous to 1st August, 1930)—*Continued.*

Number	349			350			351			355		
Name	White Hill Happy May.			Gracious Lady.			Wotton Bella Donna.			Bollhayes Dusty's Flapper.		
Born	Mar. 21, 1930.			June 5, 1928.			June 25, 1930.			May 13, 1930.		
Live weight, in lbs.	880			950			975			914		
Last Calved	Sept. 11.			Apr. 28.			Aug. 23.			June 20.		
Days since Calving	40			176			59			123		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.7	22.0	22.9	15.5	12.9	10.8	20.0	19.4	19.7	14.4	18.9	15.1
Weight of Milk, 2nd day	22.1	21.8	21.4	12.6	11.8	13.3	21.1	20.0	20.2	18.0	16.4	14.9
Total	44.8	43.8	44.3	28.1	24.7	24.1	41.1	39.4	39.9	32.4	35.3	30.0
Average	22.4	21.9	22.15	14.05	12.35	12.05	20.55	19.7	19.95	16.2	17.65	15.0
Percentage Composition of the Milk. Fat	4.51	4.60	5.80	5.62	4.40	5.62	4.43	6.06	4.33	3.00	5.01	3.81
Percentage Composition of the Milk. Solids other than Fat	9.47	8.96	9.70	9.70	9.16	9.66	9.41	9.44	8.97	9.26	8.87	8.99
Percentage Composition of the Milk. Total Solids	13.98	13.56	15.50	15.32	13.56	15.28	13.84	15.50	13.30	12.26	13.88	12.81
Actual weight of Fat, in lbs.	1.010	1.007	1.285	0.790	0.543	0.677	0.910	1.194	0.864	0.486	0.884	0.572
Actual weight of Solids other than Fat, in lbs.	2.12	1.96	2.15	1.36	1.13	1.16	1.93	1.86	1.79	1.50	1.57	1.35
Points—												
For weight of Milk (lbs.)	66.45			38.45			60.20			48.85		
For weight of Fat (lbs. × 20)	66.04			40.20			59.36			38.84		
For weight of Solids other than Fat (lbs. × 4)	24.92			14.60			22.32			17.68		
Total Points for Milk	157.41			93.25			141.88			105.37		
Deductions	—			—			—			—		
Total Points Gained for Milk	157.41			93.25			141.88			105.37		
Points for time since Calving	—			12.0			1.9			8.3		
TOTAL POINTS GAINED	**157.41**			**105.25**			**143.78**			**113.67**		
Points gained for Milk per 1,000 lbs. live weight	178.88			98.16			145.52			115.28		
Points for time since Calving	—			12.0			1.9			8.3		
Total Points per 1,000 lbs. live weight	178.88			110.16			147.42			123.58		
Remarks and Awards	1st Prize.			Highly Commended.			2nd Prize.			Highly Commended.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

Number	356			357			358			359		
Name	Sonata.			Foxwarren Harriet.			Snow Cloud.			Precious Bane.		
Born	Nov. 11, 1925.			June 6, 1927.			Feb. 27, 1930.			June 6, 1930.		
Live weight, in lbs.	970			992			935			972		
Last Calved	Aug. 16.			June 12.			June 27.			June 13.		
Days since Calving	66			131			116			130		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.5	18.2	18.6	15.0	13.8	12.6	12.6	13.1	12.2	13.0	13.3	12.9
Weight of Milk, 2nd day	17.5	15.6	19.3	14.2	13.6	12.3	10.2	15.5	9.7	13.2	12.6	12.6
Total	38.0	33.8	37.9	29.2	27.4	24.9	22.8	28.6	21.9	26.2	25.9	25.5
Average	19.0	16.9	18.95	14.6	13.7	12.45	11.4	14.3	10.95	13.1	12.95	12.75
Percentage Composition of the Milk. Fat	5.26	5.89	6.05	6.71	6.75	5.81	5.49	6.99	6.05	5.66	5.49	5.48
Percentage Composition of the Milk. Solids other than Fat	9.62	9.21	9.36	9.49	8.99	9.47	9.51	9.31	9.63	9.70	9.41	9.64
Percentage Composition of the Milk. Total Solids	14.88	15.10	15.41	16.20	15.74	15.28	15.00	16.30	15.68	15.36	14.90	15.12
Actual weight of Fat, in lbs.	0.999	0.995	1.146	0.980	0.925	0.723	0.626	1.000	0.662	0.741	0.711	0.699
Actual weight of Solids other than Fat, in lbs.	1.83	1.56	1.77	1.39	1.23	1.18	1.08	1.33	1.05	1.27	1.22	1.23
Points—												
For weight of Milk (lbs.)	54.85			40.75			36.65			38.80		
For weight of Fat (lbs. × 20)	62.80			52.56			45.76			43.02		
For weight of Solids other than Fat (lbs. × 4)	20.64			15.20			13.84			14.88		
Total Points for Milk	138.29			108.51			96.25			96.70		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	138.29			108.51			96.25			96.70		
Points for time since Calving	2.6			9.1			7.6			9.0		
TOTAL POINTS GAINED	**140.89**			**117.61**			**103.85**			**105.70**		
Points gained for Milk per 1,000 lbs. live weight	142.57			109.39			102.94			99.49		
Points for time since Calving	2.6			9.1			7.6			9.0		
Total Points per 1,000 lbs. live weight	145.17			118.49			110.54			108.49		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1930)—*Continued.*

CLASS 26.—JERSEY COW, ENGLISH OR ISLAND BRED, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST 1930, AND WHICH HAS PRODUCED TWO OR MORE CALVES.

Number	360			361			363			364		
Name	Playmate of Oaklands.			Eucalia's Jest.			Wotton Belinda.			Cambraie Elfa 2nd.		
Born	May 17, 1929.			July 20, 1929.			May 18, 1932.			Nov. 10, 1930.		
Live weight, in lbs.	888			911			980			886		
Last Calved	June 30.			Aug. 6.			Apr. 6.			July 22.		
Days since Calving	113			76			198			91		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.8	18.1	17.8	17.9	18.0	16.6	13.3	14.3	9.4	12.8	12.7	12.9
Weight of Milk, 2nd day	17.3	18.9	17.9	16.9	17.9	17.6	11.7	10.1	9.6	12.6	13.4	12.7
Total	34.1	37.0	35.7	34.8	35.9	34.2	25.0	24.4	19.0	25.4	26.1	25.6
Average	17.05	18.5	17.85	17.4	17.95	17.1	12.5	12.2	9.5	12.7	13.05	12.8
Percentage Composition of the Milk. Fat	4.39	4.84	4.28	4.87	4.90	6.08	5.50	5.37	4.79	6.85	6.15	5.88
Percentage Composition of the Milk. Solids other than Fat	9.45	9.00	9.28	9.81	9.52	9.76	9.52	8.99	9.23	9.23	9.15	9.60
Percentage Composition of the Milk. Total Solids	13.84	13.84	13.56	14.68	14.42	15.84	15.02	14.36	14.02	16.08	15.30	15.48
Actual weight of Fat, in lbs.	0.748	0.895	0.764	0.847	0.880	1.040	0.688	0.655	0.455	0.870	0.803	0.753
Actual weight of Solids other than Fat, in lbs. ...	1.61	1.67	1.66	1.71	1.71	1.67	1.19	1.10	0.88	1.17	1.19	1.23
Points—												
For weight of Milk (lbs.)	53.40			52.45			34.20			35.55		
For weight of Fat (lbs. × 20)	48.14			55.34			35.96			48.52		
For weight of Solids other than Fat (lbs. × 4) ...	19.76			20.36			12.68			14.36		
Total Points for Milk	121.30			128.15			82.84			101.43		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	121.30			128.15			82.84			101.43		
Points for time since Calving ...	7.3			3.6			12.0			5.1		
TOTAL POINTS GAINED ...	**128.60**			**131.75**			**94.84**			**106.53**		
Points gained for Milk per 1,000 lbs. live weight ...	136.60			140.67			84.53			114.48		
Points for time since Calving	7.3			3.6			12.0			5.1		
Total Points per 1,000 lbs. live weight	143.90			144.27			96.53			119.58		
Remarks and Awards	Reserve.			4th Prize.			Highly Commended.			3rd Prize.		

CLASS 26.—JERSEY COW, ENGLISH OR ISLAND BRED. BORN AFTER 1ST AUGUST, 1930)—*Continued.*

Number	366			367			370			371		
Name	Everdon Bowlina's Flora.			Deborah.			Wotton Bellona.			Queen's Dream Lady.		
Born	June 19, 1931.			Jan. 6, 1931.			Apr. 8, 1932.			Feb. 25, 1931.		
Live weight, in lbs.	965			942			888			935		
Last Calved	Oct. 1.			May 13.			Sept. 11.			May 3.		
Days since Calving	20			161			40			171		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.0	18.3	17.1	12.9	12.8	13.0	11.3	11.7	11.3	15.5	15.3	14.6
Weight of Milk, 2nd day	16.9	16.7	15.9	14.2	13.2	12.5	11.8	11.7	11.2	15.3	15.5	15.3
Total	31.9	35.0	33.0	27.1	26.0	25.5	23.1	23.4	22.5	30.8	30.8	29.9
Average	15.95	17.5	16.5	13.55	13.0	12.75	11.55	11.7	11.25	15.4	15.4	14.95
Percentage Composition of the Milk. Fat	4.30	6.25	5.92	4.74	5.23	4.68	6.04	6.34	6.53	4.84	6.07	6.13
Percentage Composition of the Milk. Solids other than Fat	9.70	9.01	9.46	9.30	9.43	9.32	9.18	9.42	9.41	9.54	9.13	9.67
Percentage Composition of the Milk. Total Solids	14.00	15.26	15.38	14.04	14.66	14.00	15.22	15.76	15.94	14.38	15.20	15.80
Actual weight of Fat, in lbs.	0.686	1.094	0.977	0.642	0.680	0.597	0.698	0.742	0.735	0.745	0.935	0.916
Actual weight of Solids other than Fat, in lbs.	1.55	1.58	1.56	1.26	1.23	1.19	1.06	1.10	1.06	1.47	1.41	1.45
Points—												
For weight of Milk (lbs.)	49.95			39.30			34.50			45.75		
For weight of Fat (lbs. × 20)	55.14			38.38			43.50			51.92		
For weight of Solids other than Fat (lbs. × 4)	18.76			14.72			12.88			17.32		
Total Points for Milk	123.85			92.40			90.88			114.99		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	123.85			92.40			90.88			114.99		
Points for time since Calving	—			12.0			—			12.0		
TOTAL POINTS GAINED	**123.85**			**104.40**			**90.88**			**126.99**		
Points gained for Milk per 1,000 lbs. live weight	128.34			98.09			102.34			122.98		
Points for time since Calving	—			12.0			—			12.0		
Total Points per 1,000 lbs. live weight	128.34			110.09			102.34			134.98		
Remarks and Awards	2nd Prize.			Reserve.			Highly Commended.			1st Prize.		

CLASS 27.—JERSEY HEIFER, ENGLISH OR ISLAND BRED. ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, AND WHICH HAS PRODUCED HER FIRST AND ONLY CALF AT OR UNDER THE AGE OF 2½ YEARS.

Number	373			374			375			376		
Name	Minterne Muriel.			Dusk.			Poppy.			Valiant Ceres.		
Born	Jan. 2, 1933.			Apr. 15, 1933.			Dec. 5, 1932.			Apr. 13, 1933.		
Live weight, in lbs.	810			765			772			691		
Last Calved	Apr. 22.			July 16.			Mar. 30.			Sept. 25.		
Days since Calving	182			97			205			26		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	12.8	12.7	12.3	8.1	8.7	9.2	11.4	11.3	11.8	9.2	9.6	9.9
Weight of Milk, 2nd day	11.9	11.5	11.4	8.3	9.0	8.6	12.1	11.8	11.5	9.4	10.1	9.7
Total	24.7	24.2	23.7	16.4	17.7	17.8	23.5	23.1	23.3	18.6	19.7	19.6
Average	12.35	12.1	11.85	8.2	8.85	8.9	11.75	11.55	11.65	9.3	9.85	9.8
Percentage Composition of the Milk: Fat	6.26	6.07	5.99	4.47	6.01	5.57	5.37	5.91	5.78	5.54	5.82	7.27
Percentage Composition of the Milk: Solids other than Fat	9.82	9.65	9.61	9.45	9.11	9.03	9.93	9.21	9.60	9.64	9.60	9.89
Percentage Composition of the Milk: Total Solids	16.08	15.72	15.60	13.92	15.12	14.60	15.30	15.12	15.38	15.18	15.42	17.16
Actual weight of Fat, in lbs.	0.773	0.734	0.710	0.367	0.532	0.496	0.631	0.683	0.673	0.515	0.573	0.712
Actual weight of Solids other than Fat, in lbs.	1.21	1.17	1.14	0.77	0.81	0.80	1.17	1.06	1.12	0.90	0.95	0.97
Points—												
For weight of Milk (lbs.)	36.30			25.95			34.95			28.95		
For weight of Fat (lbs. × 20)	44.34			27.90			39.74			36.00		
For weight of Solids other than Fat (lbs. × 4)	14.08			9.52			13.40			11.28		
Total Points for Milk	94.72			63.37			88.09			76.23		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	94.72			63.37			88.09			76.23		
Points for time since Calving	12.0			5.7			12.0			—		
TOTAL POINTS GAINED	**106.72**			**69.07**			**100.09**			**76.23**		
Points gained for Milk per 1,000 lbs. live weight	116.94			82.84			114.11			110.32		
Points for time since Calving	12.0			5.7			12.0			—		
Total Points per 1,000 lbs. live weight	128.94			88.54			126.11			110.32		
Remarks and Awards	3rd Prize.			Highly Commended.			Reserve.			Highly Commended.		

CLASS 27.—JERSEY HEIFER, ENGLISH OR ISLAND BRED—*Continued.*

Number Name	377 Empire Mary.			379 Wolvers Little Lady.			380 Conyboro Premature 6th.			383 Chalvington Lady.		
Born	May 24, 1933.			Sept. 21, 1933.			Sept. 29, 1933.			Sept. 9, 1933.		
Live weight, in lbs.	637			778			680			760		
Last Calved	Aug. 25.			Sept. 19.			Aug. 16.			Sept. 18.		
Days since Calving	57			32			66			33		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.4	14.6	15.2	10.4	10.8	9.9	12.4	14.0	13.1	9.6	10.8	10.8
Weight of Milk, 2nd day	15.7	15.2	14.3	10.2	9.3	8.6	12.8	13.5	13.4	11.2	10.9	11.2
Total	31.1	29.8	29.5	20.6	20.1	18.5	25.2	27.5	26.5	20.8	21.7	22.0
Average	15.55	14.9	14.75	10.3	10.05	9.25	12.6	13.75	13.25	10.4	10.85	11.0
Percentage Composition of the Milk. Fat	5.40	5.09	5.77	5.11	4.96	7.77	5.09	5.24	8.48	5.63	4.12	8.37
Percentage Composition of the Milk. Solids other than Fat	9.80	9.29	9.71	9.25	9.26	9.99	9.79	9.58	10.08	10.01	9.84	10.17
Percentage Composition of the Milk. Total Solids	15.20	14.38	15.48	14.36	14.22	17.76	14.88	14.82	18.56	15.64	13.96	18.54
Actual weight of Fat, in lbs.	0.840	0.758	0.851	0.526	0.498	0.719	0.641	0.721	1.124	0.586	0.447	0.921
Actual weight of Solids other than Fat, in lbs.	1.52	1.38	1.43	0.95	0.93	0.92	1.23	1.32	1.34	1.04	1.07	1.12
Points—												
For weight of Milk (lbs.)	45.20			29.60			39.60			32.25		
For weight of Fat (lbs. × 20)	48.98			34.86			49.72			39.08		
For weight of Solids other than Fat (lbs. × 4)	17.32			11.20			15.56			12.92		
Total Points for Milk	111.50			75.66			104.88			84.25		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	111.50			75.66			104.88			84.25		
Points for time since Calving	1.7			—			2.6			—		
TOTAL POINTS GAINED	**113.20**			**75.66**			**107.48**			**84.25**		
Points gained for Milk per 1,000 lbs. live weight	175.04			97.25			154.24			110.86		
Points for time since Calving	1.7			—			2.6			—		
Total Points per 1,000 lbs. live weight	176.74			97.25			156.84			110.86		
Remarks and Awards	1st Prize.			Highly Commended.			2nd Prize.			Highly Commended.		

Class 27.—JERSEY HEIFER, English or Island Bred—*Continued.*

Number	385			386		
Name	Sporting Lily.			Ovaltine Wonder.		
Born	July 1, 1933.			May 26, 1933.		
Live weight, in lbs.	732			871		
Last Calved	Sept. 20.			Sept. 29.		
Days since Calving	31			22		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.8	11.0	11.3	11.7	11.9	12.2
Weight of Milk, 2nd day	10.5	12.9	10.8	11.5	11.3	11.9
Total	22.3	23.9	22.1	23.2	23.2	24.1
Average	11.15	11.95	11.05	11.6	11.6	12.05
Percentage Composition of the Milk. Fat	3.67	5.03	5.37	3.61	4.99	6.71
Percentage Composition of the Milk. Solids other than Fat	9.23	9.39	9.57	9.35	9.65	9.99
Percentage Composition of the Milk. Total Solids	12.90	14.42	14.94	12.96	14.64	16.70
Actual weight of Fat, in lbs.	0.409	0.601	0.593	0.419	0.579	0.809
Actual weight of Solids other than Fat, in lbs. ...	1.03	1.12	1.06	1.08	1.12	1.20
Points—						
For weight of Milk (lbs.)	34.15			35.25		
For weight of Fat (lbs. × 20)	32.06			36.14		
For weight of Solids other than Fat (lbs. × 4) ...	12.84			13.60		
Total Points for Milk	79.05			84.99		
Deductions	—			—		
Total Points Gained for Milk	79.05			84.99		
Points for time since Calving ...	—			—		
TOTAL POINTS GAINED ...	**79.05**			**84.99**		
Points gained for Milk per 1,000 lbs. live weight ...	107.99			97.58		
Points for time since Calving	—			—		
Total Points per 1,000 lbs. live weight	107.99			97.58		
Remarks and Awards	Highly Commended.			Highly Commended.		

Class 30.—DEXTÈR COW, entered in or accepted for the Herd Book. Cows entered in this Class must have yielded a minimum of 5,000 lbs. at five years old or over, or 3,750 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.

Number Name	387 Grinstead Dollie 2nd.			388 Grinstead Constance 4th.			389 Grinstead Nightingale 3rd.			390 Princess 2nd of Grinstead.		
Born	May 18, 1929.			Apr. 18, 1931.			Dec. 19, 1925.			Sept. 12, 1931.		
Live weight, in lbs.	730			688			770			717		
Last Calved	July 9.			Aug. 13.			May 13.			June 20.		
Days since Calving	104			69			161			123		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.8	11.2	10.4	10.5	11.5	12.0	14.1	13.8	12.5	11.0	9.5	10.5
Weight of Milk, 2nd day	11.0	11.0	10.2	12.3	12.3	11.3	13.1	12.3	11.9	10.6	9.7	10.4
Total	22.8	22.2	20.6	22.8	23.8	23.3	27.2	26.1	24.4	21.6	19.2	20.9
Average	11.4	11.1	10.3	11.4	11.9	11.65	13.6	13.05	12.2	10.8	9.6	10.45
Percentage Composition of the Milk. Fat	3.33	3.30	3.26	3.00	3.21	2.57	4.35	4.59	3.69	5.40	4.70	4.43
Percentage Composition of the Milk. Solids other than Fat	8.91	8.76	8.88	9.12	8.87	8.89	9.25	8.63	8.97	8.76	9.04	8.99
Percentage Composition of the Milk. Total Solids	12.24	12.06	12.14	12.12	12.08	11.46	13.60	13.22	12.66	14.16	13.74	13.42
Actual weight of Fat, in lbs.	0.380	0.366	0.336	0.342	0.382	0.299	0.592	0.599	0.450	0.583	0.451	0.463
Actual weight of Solids other than Fat, in lbs.	1.02	0.97	0.91	1.04	1.06	1.04	1.26	1.13	1.09	0.95	0.87	0.94
Points—												
For weight of Milk (lbs.)	32.80			34.95			38.85			30.85		
For weight of Fat (lbs. × 20)	21.64			20.46			32.82			29.94		
For weight of Solids other than Fat (lbs. × 4)	11.60			12.56			13.92			11.04		
Total Points for Milk	66.04			67.97			85.59			71.83		
Deductions	—			10.00			—			—		
Total Points Gained for Milk	66.04			57.97			85.59			71.83		
Points for time since Calving	6.4			2.9			12.0			8.3		
TOTAL POINTS GAINED	**72.44**			**60.87**			**97.59**			**80.13**		
Points gained for Milk per 1,000 lbs. live weight	90.47			84.26			111.16			100.18		
Points for time since Calving	6.4			2.9			12.0			8.3		
Total Points per 1,000 lbs. live weight	96.87			87.16			123.16			108.48		
Remarks and Awards	3rd Prize.						1st Prize.			2nd Prize.		

THE "ROBERT MOND" CHALLENGE SHIELD AWARDS

By J. Mackintosh, O.B.E., N.D.A., N.D.D.

This trophy was presented by Mr. Robert Mond to the British Dairy Farmers' Association in 1919, with the object of encouraging breeders of dairy stock to judge bulls more by the production of their daughters than by the appearance of the bulls themselves.

At the same time a special prize of £10 was also presented by Mr. Mond for two cows or heifers, the progeny of one bull, exhibited at the Dairy Show and gaining the largest number of points above the standard of the classes in which they were exhibited. The entry of two animals for this special prize was taken as equivalent to an entry for the Challenge Shield, but in order to qualify for the latter the two daughters exhibited at the Dairy Show and two additional daughters must have given at least 5,500 lbs. milk containing not less than 3.5 per cent. fat in their first lactation period, or at least 6,500 lbs. milk containing not less than 3.5 per cent. fat in their second or later lactation periods, each lactation period not to exceed 365 days and each competing animal to be in calf within five months of the commencement of the lactation period. The Challenge Shield is then awarded to the group of four daughters complying with these conditions and producing the highest yield of butter-fat.

The special prize of £10 has been won at practically all the Dairy Shows since 1920, but the Challenge Shield has been won on only seven occasions. It is probable that entries were restricted for a few years by the fact that the Prize and Shield were open only to Dairy Shorthorns, but since 1922 these trophies have been open to all breeds, and in some respects the qualifying conditions have been made less stringent. Full details are published each year in the schedule of prizes issued before the Show and in the catalogues issued at the Show.

Details are given below of the winning entries in 1925-26, 1928-29, 1930-31, 1931-32, 1932-33, 1933-34 and 1934-35.

The winner in 1925-26 was Major C. R. Dudgeon, Cargen Holm, Dumfries, with the progeny of the Ayrshire bull "Thornhill Mount Royal" (19147). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Cargen Holm Proud Lady 10th	10,193	4.11	415.2
Cargen Holm Sally 6th ...	11,693	3.83	447.8
Cargen Holm Proud Lady 8th	9,721	4.05	393.7
Cargen Holm Daisy Bell 2nd	8,566	4.23	362.3
	Total fat yield ...	...	1,619.0

The reserve in 1925-26 was Mr. E. A. Smith, Longhills, Lincoln, with the progeny of the Dairy Shorthorn bull, " Babraham Lord Price " (140574). The total yield of fat of the four daughters of this bull was 1,126.0 lb.

In 1928-29 the winner was Mr. Grosvenor Berry with the progeny of the Jersey bull, " Nimrod " (14890). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Post Girl 2nd	7,542½	4.17	314.52
Nimrod's Primrose	5,786	5.76	333.27
Water Dinah	9,117¼	3.64	331.87
Nimrod's Taranto 2nd ...	8,285¼	3.86	319.81
	Total fat yield ...	...	1,299.47

The winner in 1930-31 was Mr. G. Wills, Rydon, Ogwell, Newton Abbot, with the progeny of the South Devon bull, " Flete Forester 7th " (11444). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Primula 5th (33706)	8,508½	3.99	339.19
Milkmaid (33702)	7,938½	4.54	360.41
Snowdrop 6th (33707) ...	7,871½	4.11	323.52
Pink 12th (33703)	6,163¼	4.19	258.24
	Total fat yield ...	...	1,281.66

The reserve in 1930-31 was Mr. A. Weightman, Middle Herrington, Sunderland, with the progeny of the British Friesian bull, "Wychnor Jan" (P.I.) (24645). The total yield of fat of the four daughters of this bull was 1,086.64 lbs.

In 1931-32 four entries were received but only in one of these were all the conditions complied with. The winner was Mr. J. Cochrane, Byreholm, Thornhill, Dumfries-shire, with the progeny of the Ayrshire bull, "Netherton Prosperity" (26488). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Byreholm Jubilee 2nd (23744)	11,640	4.40	512.16
Byreholm Julia 2nd (23747)	9,410	3.72	350.05
Byreholm Jujube (23746) ...	8,760	4.25	372.30
Byreholm Juno (23749) ...	5,630	4.45	250.53
	Total fat yield ...	...	1,485.04

In 1932-33 there were seven entries, but unfortunately six of these failed to comply fully with the conditions, owing to delayed calvings or other occurrences.

The winner was found to be Mr. G. Wills, Rydon, Ogwell, Newton Abbot, with the progeny of the South Devon bull, "Flete Forester 7th" (11444). Mr. Wills had also won the Shield in 1930-31, with a group of progeny by the same bull. The yields of the four daughters were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Starlight 11th (34377) ...	8,999	4.21	378.86
Pink 12th (33703)	6,519¾	3.97	252.32
Lavender 3rd (34372) ...	6,631½	4.27	283.16
Snowdrop 6th (33707) ...	9,250½	4.45	411.65
	Total fat yield ...	...	1,325.99

In 1933-34 there were again seven entries :—two from Dairy Shorthorn herds, two from British Friesian herds, two from South Devon herds and one from a Guernsey herd. Unfortunately, through a variety of causes such as failure of the animals sent to the Dairy Show to attain the class standard in points, failure to calve again within 425 days or sale of an animal, six out of the seven entries failed to comply with the conditions of the competition. The remaining entrant, Mr. George Wills, Rydon, Ogwell, Newton Abbot complied with all the conditions and therefore holds the Shield for the current year.

The sire of the four animals is the South Devon bull, Wychbrook Champion (10995). Mr. Wills was the winner in 1932-33 and also in 1930-31 with another bull, "Flete Forester 7th" (11444) and deserves congratulations on his continued success.

The yields of the four daughters in 1932-33 were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Hawthorn 8th (14069) ...	7,741¼	4.35	336.74
Hawthorn 9th (15073) ...	8,096¼	3.94	318.99
Starlight 14th (15116) ...	9,575¼	4.32	413.65
Milkmaid 3rd (14072) ...	6,509	4.44	288.99
	Total fat yield ...	...	1,358.37

In 1934-35 there were eight entries and five breeds were represented, namely :—Dairy Shorthorns, 3 ; Ayrshires, 2 ; Red Polls, 1 ; Jerseys, 1 ; South Devons, 1.

For various reasons four of the entries failed to comply with the conditions but the remaining four produced results which are worthy of close attention. The winner of the Shield is Mr. Gordon McWilliam, Dunwood Manor, Romsey, Hants., with the bull "Warrior's Cid You'll Do" (15462). The records of the four daughters of this bull are shown below and the total weight of butter fat produced by the four daughters constitutes a record for this Competition, a total of 2,397.55 lb., showing a marked advance on the previous highest total—1,619 lb. earned in 1925-26 by an Ayrshire breeder. The yields of the four daughters of Mr. Gordon McWilliam's bull are :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Bellhayes May's Sunrise (12170)	18,006½	4.18	752.67
Bollhayes Jolly Bart (12164)...	13,486	4.53	610.92
Bollhayes Princess Mary (12177)	12,200	4.87	594.14
Bollhayes Parlourmaid (12173)	9,928¼	4.43	439.82
	Total fat yield ...	...	2,397.55

The reserve is Mr. J. Cochrane, Byreholm, Penpont, Dumfries, with the progeny of the bull "Halldykes Willy" (29848). The total fat yield of the progeny of this bull was 1,656.18 lb. which also exceeds the previous record yield.

The competition for the Shield this year was much keener than in previous years and the general standard of performance was notably higher. An increase in the number of entries may confidently be looked for in succeeding years.

THE MILKING TRIALS FOR GOATS, 1935

By THOS. W. PALMER.

The classification was identical with that of the previous year. Entries numbered 27, an increase of 6; 18 goats actually competed, five more than at the last Show.

No goat succeeded in creating a new record for the Dairy Show. The animal (" Bitterne Penelope " Q*) giving the highest yield (15.2 lbs.) holds the record for 24 hours' yield with 23 lbs. 8 ozs. at the Sussex County Show at Horsham in June, 1935; for the recorded year to 1st October, 1935, she yielded no less than 5,228 lbs. 14 ozs. in 313 days, an average of 16 lbs. 11 ozs. for each day in milk.

Class 40. *She Goats, First Kidders.*—Eleven entries, one absent (1934, nine entries, four absent). Mrs. Perry's " Buckwyns Maggie " Q*Q*Q*, first with a yield of 10.75 lbs. after being in milk for 67 days, butter fat 7.54 per cent. and 5.59 per cent.; total points 29.41. She was reserve for the Dewar Trophy. Second prize was awarded to Mrs. McVay's " Murity " Q*, yield 10.7 lbs., butter fat 5.04 per cent. at both a.m. and p.m. milkings, lactation points 2.4; total points 27.60. Mrs. Stirling's " Twinstead Threepennybit " Q*** was third with a yield of 11.15 lbs., butter fat 3.19 per cent. and 4.63 per cent., lactation points 2.2; total points 26.36. This goat secured the Abbey Cup for the British Alpine bred by the exhibitor gaining highest points in the milking competition. A Fourth prize, offered by the British Goat Society, was awarded to Miss Madoc's " Melverley Merrilees " *Q*Q*Q*Q*Q*Q*, yield 9.95 lbs., butter fat 4.36 per cent. and 5.80 per cent., lactation points 1.2; total points 25.08. This goat was Reserve for the Abbey Cup. The Reserve number in the class was Mrs. Stirling's " Bitterne Domino " ** with a yield of 10.85 lbs., total points 23.90, and two goats owned by Mrs. Morcom obtained High Commendations for exceeding 20 points. Competition was fairly close—less than five points separated the first prize winner from the fourth.

Class 41. *She Goats not eligible for Class* 40.—Sixteen entries, eight absent (1934, twelve entries, four absent). Mrs. McVay's " Bitterne Penelope " Q* was first with a yield of 15.2 lbs., butter fat 4.44 per cent. and 4.55 per cent., lactation points 2.2.; total points 36.25. In addition this goat secured the Holmes Pegler

Jubilee Trophy, the Dual Purpose Challenge Certificate, the Baroness Burdett Coutts Cup, the Tremedda Selene Cup and the Dewar Trophy. Second prize was awarded to Mrs. Carswell's " Butterbur of Coltishall " Q*Q*, yield 11 lbs., butter fat 6.70 per cent. and 7.29 per cent., lactation points 1.9 ; total points 32.43. She also secured the Pomeroy Cup for the Anglo-Nubian goat obtaining the highest number of points in the Milking Competition and was Reserve both for the Baroness Burdett Coutts Cup and Tremedda Selene Cup. Mrs. Morcom's " Cornish Saccharine " Q*Q*Q*Q* was third, yield 10.9 lbs., butter fat 4.45 per cent. and 4.39 per cent., lactation points 3.6 and total points 28.12. This goat won the Dewar Cup and was Reserve for the Holmes Pegler Jubilee Trophy. The Fourth prize, offered by the British Goat Society, was awarded to Miss Parker's " Heddon Sarah " *Q*Q*Q*, yield 8.9 lbs., butter fat 4.99 per cent. and 4.02 per cent., lactation points 3.3 ; total points 23.38. Mrs. Morcom's " Cornish Plaudit " **Q*Q* was Reserve with a yield of 9.35 ; total points 23.21. One High Commendation was awarded. The competition in this class was neither so keen nor close as in the previous class, nearly 13 points separating the first from the fourth prize winner.

Two goats which competed at the 1934 Show again entered. Both were present at the Show ; one succeeded in winning a prize, the other obtained a High Commendation.

Class 42. *She Goats, Toggenburg.*—Six entered for Inspection, three for Milking, two absent. The only competitor was Miss Sheppard's " Widdington Willenda " *Q* which gave a yield of 8.6 lbs., butter fat 3.64 per cent. and 4.73 per cent. ; total points 20.31. The goat obtained a High Commendation and was awarded the Straker Cup for the Toggenburg goat obtaining the highest number of points in the Milking Competition.

Class 43. *British Alpine.*—Eight entered for Inspection, five for Milking. All present. Mrs. McVay's " Murity " Q* won Second prize in Class 40, yield 10.7 lbs., butter fat 5.04 per cent. at both milkings ; total points 27.60. Mrs. Stirling's " Twinstead Threepennybit " Q*** obtained Third prize in the same class with a yield of 11.15 lbs., butter fat 3.19 per cent. and 4.63 per cent. ; total points 26.36. Miss Madoc's " Melverley Merrilees " *Q*Q*Q*Q*Q*Q* was Fourth in Class 40, yield 9.95, butter fat 4.36 per cent. and 5.80 per cent. ; total points 25.08. Of the remaining two goats one was Reserve in Class 40 and the other disqualified in Class 41 for deficiency of butter fat in the morning milking.

Class 44. *She Goats, Saanen.*—Five entered for Inspection, two for Milking, one absent. The only competitor in the Milking

Competition was Miss Parker's "Jean of Delamere" *Q** who gave a yield of 7.25 lbs., butter fat 3.77 per cent. and 3.58 per cent.; total points 16.61. She did not obtain any award in the Milking Class but secured the Saanen Cup for the Saanen goat bred by the exhibitor gaining the highest number of points in the Milking Competition.

Class 45. *She Goats, British Saanen.*—Eleven entered for Inspection, eight for Milking, four absent. Miss Parker's "Heddon Sarah" *Q*Q*Q* gained Fourth prize in Class 41, yield 8.9 lbs., butter fat 4.99 per cent. and 4.02 per cent.; total points 23.38. The other two competitors were disqualified both being deficient in butter fat, one in the morning and the other on both occasions.

Class 46. *She Goats, Anglo-Nubian.*—Nine entered for Inspection, two for Milking, one absent. The competitor in this class was "Butterbur of Coltishall" Q*Q* owned by Mrs. Carswell, yield 11 lbs., butter fat 6.70 per cent. and 7.29 per cent.; total points 32,43. She obtained Second prize in Class 41, qualified for the Pomeroy Cup and was Reserve for the Baroness Burdett Coutts Cup and the Tremedda Selene Cup.

Class 47. *She Goats, British Toggenburg.*—Five entered for Inspection, three for Milking, all present and owned by Mrs. Morcom. "Cornish Plaudit" **Q*Q* was Reserve in Class 41, yield 9.35 lbs., butter fat 4.52 per cent. and 4.39 per cent.; total points 23.21. "Cornish Praline" Q*Q*Q*Q** and "Cornish Saint" Q* were both Highly Commended in Class 40.

Class 48. *She Goats, Any Other Variety.*—Five entries for Inspection, four for Milking, all present. Two of the goats were entered in Class 40 and two in Class 41. In the former, Mrs. Perry's "Buckwyns Maggie" Q*Q*Q* obtained First prize and was Reserve for the Dewar Trophy, yield 10.75 lbs., butter fat 7.54 per cent. and 5.59 per cent.; total points 29.41. The other goat in this class did not qualify for an award. In Class 41 Mrs. McVay's "Bitterne Penelope" Q* was First and secured many other awards as enumerated above, yield 15.2 lbs., butter fat 4.44 per cent. and 4.55 per cent.; total points 36.35. Mrs. Morcom's "Cornish Saccharine" Q*Q*Q*Q* was Third, yield 10.9 lbs., butter fat 4.45 per cent. and 4.39 per cent.; total points 28.12. She also secured the Dewar Cup and was Reserve for the Holmes Pegler Trophy.

Three goats were disqualified for deficiency in butter fat, two failing at the morning milking and the other at both milkings.

The usual Tabulated Statements follow:—

TABLE I.

Class.	Description.	Number in Class.		Average Live Weight.	Average Yield of Milk.	Highest Yield.	Lowest Yield.	Average period of Lactation.	Average Fat.	Average Solid not Fat.	Number of Animals below Standard for Fat.		Average points Gained.
		Entered.	Competing.										
				lbs.	lbs.	lbs.	lbs.	days.			a.m.	p.m.	
42	Toggenburg	3	1	159	8.60	8.60	8.60	145	4.18	9.15	—	—	20.31
43	British Alpine	5	5	174	10.82	11.45	9.95	206	4.10	8.97	1	—	25.34
44	Saanen	2	1	177	7.25	7.25	7.25	161	3.67	8.32	—	—	16.61
45	British Saanen	8	3	172	11.85	14.40	8.90	241	3.40	8.49	1	2	25.00
46	Anglo-Nubian	2	1	239	11.00	11.00	11.00	196	6.99	9.44	—	—	32.43
47	British Toggenburg	3	3	189	8.96	10.00	7.55	311	4.61	9.16	—	—	23.02
48	Any Other Variety	4	4	184	11.03	15.20	7.30	263	4.88	8.87	—	—	27.88

TABLE II.

Description of Class.	Year of Show.	Number of Animals Competing.	Average live weight of each Animal.	Average period of Lactation.	Average weight of Milk.		Average weight of Milk per day.	Highest Yield.	Lowest Yield.	Percentages.			
										Fat.		Solids.	
			lbs.	days.	a.m.	p.m.				a.m.	p.m.	a.m.	p.m.
Star or Q Star Milkers	1928	9	189	218	5.03	4.73	9.76	12.65	6.05	4.68	4.43	8.66	8.79
Other than First Kidders	1929	10	169	219	4.64	4.53	9.17	11.65	6.45	4.36	4.66	8.70	8.63
,, ,, ...	1930	9	178	197	4.62	4.45	9.07	12.70	6.35	4.64	4.63	8.75	8.51
,, ,, ...	1931	14	158	194	4.20	3.97	8.17	14.30	3.90	4.97	4.91	8.36	8.60
,, ,, ...	1932	12	181	249	5.67	5.32	10.99	16.00	7.00	3.96	4.11	8.50	8.47
,, ,, ...	1933	14	182	268	5.18	5.04	10.22	14.10	6.95	4.57	4.36	8.27	8.73
,, ,, ...	1934	8	172	236	5.58	5.24	10.83	13.65	9.10	4.00	4.47	8.47	8.41
,, ,, ...	1935	8	191	260	5.77	5.45	11.22	15.20	8.60	4.31	4.43	8.60	9.04
Not eligible as Star Milkers	1928	3	118	204	3.58	3.48	7.06	8.35	5.9	4.34	3.80	8.62	8.58
First Kidders	1929	13	157	199	4.62	4.30	8.92	14.70	5.45	4.26	4.67	8.82	8.84
,, ,, ...	1930	6	164	196	4.65	4.35	9.00	11.60	8.25	4.45	4.43	8.53	8.43
,, ,, ...	1931	14	163	200	4.28	4.06	8.34	14.45	5.70	4.43	4.73	8.30	8.58
,, ,, ...	1932	13	171	243	4.64	4.28	8.92	11.70	4.10	3.82	4.31	9.04	8.68
,, ,, ...	1933	8	157	208	5.12	4.80	9.92	12.05	7.15	4.20	3.88	8.17	8.66
,, ,, ...	1934	5	170	257	4.63	4.46	9.09	11.30	7.20	4.75	5.55	8.76	8.86
,, ,, ...	1935	10	173	216	4.96	4.81	9.77	12.25	7.25	4.37	4.42	8.78	9.14

CLASS 40.—SHE-GOATS (FIRST KIDDERS).

Number	397		400		401		403		406	
Name	Murity.		Bitterne Domino.		Twinstead Threepenny Bit.		Melverley Merrilees.		Jean of Delamere.	
Born	Mar. 18, 1933.		Mar. 17, 1933.		Mar. 18, 1933.		Feb. 21, 1933.		Jan. 24, 1933.	
Live weight, in lbs.	144		180		170		196		177	
Last Kidded	Feb. 22.		Mar. 15.		Mar. 13.		June 15.		May 12.	
Days since Kidding	240		219		221		127		161	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	5.5	5.1	5.6	5.6	5.6	5.4	5.0	5.0	3.6	3.5
Weight of Milk, 2nd day	5.3	5.5	5.4	5.1	5.8	5.5	4.8	5.1	3.6	3.8
Total	10.8	10.6	11.0	10.7	11.4	10.9	9.8	10.1	7.2	7.3
Average	5.4	5.3	5.5	5.35	5.7	5.45	4.9	5.05	3.6	3.65
Percentage Composition of the Milk. Fat	5.04	5.04	3.01	3.70	3.19	4.63	4.36	5.80	3.77	3.58
Percentage Composition of the Milk. Solids other than Fat	8.62	8.76	8.21	8.70	9.99	9.41	9.12	9.90	8.07	8.58
Percentage Composition of the Milk. Total Solids	13.66	13.80	11.22	12.40	13.18	14.04	13.48	15.70	11.84	12.16
Actual weight of Fat, in lbs.	0.272	0.267	0.166	0.198	0.182	0.252	0.214	0.293	0.136	0.131
Actual weight of Solids other than Fat, in lbs.	0.465	0.464	0.452	0.465	0.569	0.513	0.447	0.500	0.291	0.313
Points—										
For weight of Milk (lbs.)	10.70		10.85		11.15		9.95		7.25	
For weight of Fat (lbs. × 20)	10.78		7.28		8.68		10.14		5.34	
For weight of Solids other than Fat (lbs. × 4)	3.72		3.67		4.33		3.79		2.42	
Total Points for Milk	25.20		21.80		24.16		23.88		15.01	
Deductions	—		—		—		—		—	
TOTAL POINTS GAINED FOR MILK	25.20		21.80		24.16		23.88		15.01	
Points for time since Kidding	2.4		2.1		2.2		1.2		1.6	
TOTAL POINTS GAINED	**27.60**		**23.90**		**26.36**		**25.08**		**16.61**	
Remarks and Awards	2nd Prize.		Reserve.		3rd Prize.		4th Prize.			

CLASS 40.—SHE-GOATS (FIRST KIDDERS)—*Continued.*

Number Name	419 Hartye of Weald.		432 Cornish Saint.		433 Cornish Praline.		436 Cornish Playful.		437 Buckwyns Maggie.	
Born	Apr. 30, 1933.		Mar. 18, 1932.		Feb. 27, 1933.		Feb. 21, 1933.		July 11, 1933.	
Live weight, in lbs.	138		200		182		172		176	
Last Kidded	Mar. 14.		June 6, 1934.		Mar. 31.		Mar. 28.		Aug. 14.	
Days since Kidding	220		501		203		206		67	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	6.5	5.8	3.9	3.7	5.4	4.6	3.7	3.4	5.5	5.3
Weight of Milk, 2nd day	6.1	6.1	3.7	3.8	5.1	4.9	3.8	3.7	5.4	5.3
Total	12.6	11.9	7.6	7.5	10.5	9.5	7.5	7.1	10.9	10.6
Average	6.3	5.95	3.8	3.75	5.25	4.75	3.75	3.55	5.45	5.3
Percentage Composition of the Milk.										
Fat	3.16	2.69	5.53	5.17	4.33	3.77	3.83	4.32	7.54	5.59
Solids other than Fat	8.50	8.69	9.41	9.69	8.97	9.17	8.61	8.70	8.36	9.89
Total Solids	11.66	11.38	14.94	14.86	13.30	12.94	12.44	13.02	15.90	15.48
Actual weight of Fat, in lbs.	0.199	0.160	0.210	0.194	0.227	0.179	0.144	0.153	0.411	0.296
Actual weight of Solids other than Fat, in lbs.	0.536	0.517	0.358	0.363	0.471	0.436	0.323	0.309	0.456	0.524
Points—										
For weight of Milk (lbs.)	12.25		7.55		10.00		7.30		10.75	
For weight of Fat (lbs. × 20)	7.18		8.08		8.12		5.94		14.14	
For weight of Solids other than Fat (lbs. × 4)	4.21		2.88		3.63		2.53		3.92	
Total Points for Milk	23.64		18.51		21.75		15.77		28.81	
Deductions	1.0		—		—		—		—	
TOTAL POINTS GAINED FOR MILK	22.64		18.51		21.75		15.77		28.81	
Points for time since Kidding	2.2		3.6		2.0		2.0		0.6	
TOTAL POINTS GAINED	**24.84**		**22.11**		**23.75**		**17.77**		**29.41**	
Remarks and Awards	Disqualified.		Highly Commended.		Highly Commended.				1st Prize.	

CLASS 41.—SHE-GOATS (NOT ELIGIBLE FOR CLASS 40).

Number	395		402		415		420	
Name	Widdington Willenda.		Didgemere Petunia.		Heddon Sarah.		Haste of Weald.	
Born	June 19, 1932.		Apr. 13, 1931.		Mar. 5, 1928.		Mar. 15, 1931.	
Live weight, in lbs.	159		180		180		198	
Last Kidded	May 28.		Mar. 11.		Nov. 19, 1934.		May 3.	
Days since Kidding	145		223		335		170	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	4.6	3.9	5.5	5.6	5.5	4.2	7.7	6.9
Weight of Milk, 2nd day	4.3	4.4	5.9	5.9	3.8	4.3	7.2	7.0
Total	8.9	8.3	11.4	11.5	9.3	8.5	14.9	13.9
Average	4.45	4.15	5.7	5.75	4.65	4.25	7.45	6.95
Percentage Composition of the Milk. — Fat	3.64	4.73	2.93	3.37	4.99	4.02	2.83	2.73
Percentage Composition of the Milk. — Solids other than Fat	8.98	9.33	8.43	8.59	8.59	8.96	7.85	8.39
Percentage Composition of the Milk. — Total Solids	12.62	14.06	11.36	11.96	13.58	12.98	10.68	11.12
Actual weight of Fat, in lbs.	0.162	0.196	0.167	0.194	0.232	0.171	0.211	0.190
Actual weight of Solids other than Fat, in lbs.	0.400	0.387	0.481	0.494	0.399	0.381	0.585	0.583
Points—								
For weight of Milk (lbs.)	8.60		11.45		8.90		14.40	
For weight of Fat (lbs. × 20)	7.16		7.22		8.06		8.02	
For weight of Solids other than Fat (lbs. × 4)	3.15		3.90		3.12		4.67	
Total Points for Milk	18.91		22.57		20.08		27.09	
Deductions	—		1.0		—		2.0	
TOTAL POINTS GAINED FOR MILK	18.91		21.57		20.08		25.09	
Points for time since Kidding	1.4		2.2		3.3		1.7	
TOTAL POINTS GAINED	**20.31**		**23.77**		**23.38**		**26.79**	
Remarks and Awards	Highly Commended.		Disqualified.		4th Prize.		Disqualified.	

CLASS 41.—SHE-GOATS (NGT ELEGIBLE FOR CLASS 40)—*continued.*

Number	424		434		435		438	
Name	Butterbur of Coltishall.		Cornish Plaudit.		Cornish Saccharine.		Bitterne Penelope.	
Born	Apr. 16, 1931.		Feb. 28, 1932.		Feb. 22, 1931.		Mar. 26, 1931.	
Live weight, in lbs.	239		187		184		206	
Last Kidded	Apr. 7.		Mar. 5.		Apr. 13, 1934.		Mar. 7.	
Days since Kidding	196		229		555		227	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	5.8	5.4	4.5	4.6	6.0	5.1	8.3	7.4
Weight of Milk, 2nd day	5.5	5.3	5.0	4.6	5.5	5.2	7.3	7.4
Total	11.3	10.7	9.5	9.2	11.5	10.3	15.6	14.8
Average	5.65	5.35	4.75	4.6	5.75	5.15	7.8	7.4
Percentage Composition of the Milk. Fat	6.70	7.29	4.52	4.39	4.45	4.39	4.44	4.55
Percentage Composition of the Milk. Solids other than Fat	9.10	9.79	8.74	9.03	8.73	9.59	8.40	8.69
Percentage Composition of the Milk. Total Solids	15.80	17.08	13.26	13.42	13.18	13.98	12.84	13.24
Actual weight of Fat, in lbs.	0.379	0.390	0.215	0.202	0.256	0.226	0.346	0.337
Actual weight of Solids other than Fat, in lbs. ...	0.514	0.524	0.415	0.415	0.502	0.494	0.655	0.643
Points—								
For weight of Milk (lbs.)	11.00		9.35		10.90		15.20	
For weight of Fat (lbs. × 20)	15.38		8.34		9.64		13.66	
For weight of Solids other than Fat (lbs. × 4) ...	4.15		3.32		3.98		5.19	
Total Points for Milk	30.53		21.01		24.52		34.05	
Deductions	—		—		—		—	
TOTAL POINTS GAINED FOR MILK	30.53		21.01		24.52		34.05	
Points for time since Kidding ...	1.9		2.2		3.6		2.2	
TOTAL POINTS GAINED ...	**32.43**		**23.21**		**28.12**		**36.25**	
Remarks and Awards	2nd Prize.		Reserve.		3rd Prize.		1st Prize.	

The Dairy Show Butter Tests, 1935

By R. H. Evans, B.Sc.

The 1935 Butter Tests were carried out on similar lines to those of the previous year. The animals competing were, on the whole, well up to the average standard obtaining at the London Dairy Show. The total entries for the Butter Tests were 247, of which 169 animals were tested.

The following table shows the number of cattle which reached the standard points in each breed :—

Breed.	No. tested.	No. that reached breed standard.	Percentage of those competing.
Pedigree Shorthorns	15	14	98%
Non-pedigree Shorthorns	7	5	72%
Lincoln Reds	10	9	90%
British Friesians	21	15	71%
South Devons	10	8	80%
Red Polls	30	18	60%
Ayrshires	22	20	91%
Guernseys	21	20	95%
Jerseys	22	22	100%
Devons	4	3	75%
Welsh Blacks	6	4	67%
Kerries	0	0	—
Dexters	1	1	100%
	169	139	82%

From the above table it will be seen that 82% of the cattle tested obtained the standard number of points. This figure comprises a record and compares very favourably with the figures for the three previous years, viz.: 1932, 61% ; 1933, 66% 1934, 72%.

The total milk yielded in 24 hours by the 165 animals tested (four having been disqualified which are not included) amounted to 9211.1 lbs.—an average of 55.8 lbs. per cow—a slight increase on last year's figure.

The total butter churned was 359.670 lbs.—an average of 2.191 lbs. per cow. This figure also shows a slight increase on that of the previous year (1.998 lbs.).

The awards in the Butter Tests were in accordance with the following scale of points :—

One point for every ounce of butter, one point for every completed ten days since calving (calculated to the first day of the Show), deducting the first 40 days. Maximum allowances for period of lactation, 12 points. Fractions of ounces of butter and incomplete periods of less than 10 days to be worked out in decimals and added to the total points. In the case of cows obtaining the same number of points, the prize to be awarded to the cow that has been longest time in milk.

A certificate giving the last day of calving of full time calf (which had to be before 9 a.m. on October 7th) to reach the Secretary by Saturday, the 12th October.

No prize will be awarded to animals in the Butter Tests which do not come up to the following standard :—

Breed.	Heifers. Points.	Cows under 5 years. Points.	Cows, 5 years and over. Points.
Pedigree Shorthorns	22.7	28.3	34
Non-pedigree Shorthorns ...	22.7	28.3	34
Lincoln Reds	22.7	28.3	34
British Friesians	22.7	28.3	34
South Devons	22.7	28.3	34
Devons	22.0	25.0	30
Red Polls	22.7	28.3	34
Blue Albions	22.7	28.3	34
Welsh Blacks	20.0	25.0	30
Ayrshires	22.7	28.3	34
Guernseys	20.0	25.0	30
Jerseys	23.3	29.2	35
Kerries	19.3	24.2	29
Dexters	19.3	24.2	29

Certificates of Merit and Highly Commended Cards were given to animals other than Prizewinners, that reached the above standards. The following were the number of entries, and the actual number tested at the 1935 Dairy Show :—

Breed.	No. entered.	No. tested.	No. disqualified.
Pedigree Shorthorns	25	15	—
Non-pedigree Shorthorns	10	7	—
Lincoln Reds	13	10	—
British Friesians	43	19	2
South Devons	12	10	—
Red Polls	39	28	2
Ayrshires	35	22	—
Guernseys	28	21	—
Jerseys	29	22	—
Devons	4	4	—
Welsh Blacks	8	6	—
Kerries	0	0	—
Dexters	1	1	—
	247	165	4

SHORTHORNS.

A.—Pedigree.

Fifteen Pedigree Shorthorns were tested—one less than at the 1934 Show. Fourteen of these—93%—obtained the standard number of points for the breed—an excellent performance.

Capt. A. S. Wills' "Thornby Foggathorpe 30th" (103820) obtained the First Prize and Silver Medal offered in the Shorthorn Classes. Her milk and butter yields amounted to 61.3 lbs. and 2.9 lbs. respectively, showing a butter ratio of 1 : 21.14. This animal was also awarded the Shorthorn Butter Cup.

The third award in the Shorthorn classes was awarded to E. H. Birley's cow, "Harescombe Margaret" (119593). This animal yielded 78.5. lbs. of milk from which 2.84 lbs. of butter was churned. This animal was the Reserve for the Supreme Individual Championship.

The fourth prize was won by C. J. Allday's cow "Fothering Foggathorpe 2nd" (145167) with milk and butter yields of 60.8 lbs. and 2.825 lbs. respectively. This cow was the Reserve for the Shorthorn Butter Cup. Ten other animals were awarded H.C. cards.

W. H. Vigus' cow "Revels Graceful Lady" (114152) was the Reserve animal in this class.

B.—Non-Pedigree.

Seven Non-pedigree Shorthorns were tested, five of which being awarded a H.C. card.

C.—Lincoln Reds.

Ten animals were tested.

Messrs. Chivers & Sons, Ltd.'s "Histon Fanny 6th" (Vol. 35, page 271) was awarded the 2nd prize and Bronze Medal in the Shorthorn classes. Her milk and butter yield amounted to 64.5 lbs. and 3.0 lbs. respectively. Eight other animals in this class were awarded H.C. cards.

BRITISH FRIESIANS.

Twenty-one cows of this breed were tested.

Cecil Ball's cow "Abingworth Dainty" (123010) was awarded the First Prize and Silver Medal. This animal yielded 82.8 lbs. milk, from which was obtained 3.325 lbs. of butter, giving a butter ratio of 1 : 24.9.

The cow was the Reserve for the Spencer Cup.

The Second Prize and Bronze Medal were won by J. Martin's cow "Netherhall Jean" (119446) with milk and butter yields of 81.5 lbs. and 3.25 lbs. respectively.

The Third award went to Cecil Ball's "Abingworth Hazel" (163096), her milk and butter yields being 80.5 lbs. and 3.15 lbs. respectively.

The Fourth Prize was awarded to J. H. Brown's "Marshgreen Kathleen" (139388)—her milk yield amounting to 86.5 lbs. from which 3.12 lbs. butter was obtained. This animal was the Reserve for the "Morrison" Cup.

The Reserve in this class was J. H. Brown's "Marshgreen Bessie" (159186). Ten other animals in this class were awarded H.C. cards.

SOUTH DEVONS.

Ten South Devons were tested.

The £3 Prize was awarded to G. Wills' "Milkmaid 5th" (35941). This animal yielded 62.2 lbs. milk from which 3.25 lbs. butter was obtained, giving a ratio of 1 : 19.14. This animal also won the South Devon Cup.

The Prize of £2 was won by J. T. Dennis' cow "Winsor Alma" (A.89) with a milk yield of 60.9 lbs. and a butter yield of 2.88 lbs.

The Reserve in this class was Dartington Hall Ltd.'s cow "Cinderella" (35125).

RED POLES.

Twenty-eight animals of this breed were tested.

The First Prize and Silver Medal went to Lt.-Col. Sir Merrik R. Burrell's "Knepp Cowslip 14th" (43640) with milk and butter yields of 55.6 lbs. and 3.09 lbs. respectively, showing a butter ratio of 1 : 17.99—an excellent performance. This animal was the Reserve for the "Thornton" Cup.

The Second Prize and Bronze Medal was awarded to Mrs. H. D. Lewis' "Eastwell Marshmallow" (43212). This cow yielded 61.4 lbs. milk from which 2.885 lbs. butter was obtained.

The Third award went to Mrs. Lewis' "Combwell Rosie" (45051) with milk and butter yields of 70.8 lbs. and 2.81 lbs. respectively. This cow won the "Thornton" Cup.

The Earl of Radnor's cow, "Longford Bitter Sweet" (39805) was awarded the fourth place with a milk yield of 71.7 lbs. from which 2,665 lbs. butter was obtained.

The Reserve in this class was Stuart Paul's cow "Kirton Sundial" (49651).

Thirteen other animals of this breed qualified for a H.C. card.

AYRSHIRES.

Twenty-two Ayrshires were tested. This number shows a decrease on that of 1934—viz., 30.

D. Smith's cow "Thornhill Mermaid 2nd" (25060) won the First Prize and Silver Medal offered in this class. The milk yielded amounted to 76.9 lbs. from which 3.355 lbs. butter was obtained; giving a butter ratio of 1 : 22.92. This animal also won the "Spencer" and "Rowallan" Cups.

The Second Prize and Bronze Medal was awarded to J. N. Drummond's "Bargower Miss Donald 7th" (45127) with milk and butter yields of 64.6 lbs. and 3.25 lbs. respectively, giving a butter ratio of 1 : 19.88.

The Third Prize winner was J. N. Drummond's "Bargower Miss Donald 3rd" (20371)—a cow yielding 74.8 lbs. milk from which 3.135 lbs. butter was obtained.

J. N. Drummond's cow "Bargower Miss Donald 5th" (31757) occupied the Fourth place—her yield of milk amounting to 61.4 lbs. from which 2.97 lbs. of butter was churned.

The Reserve in the Ayrshire class was the University of Edinburgh's cow "Barr Kamela" (13451).

Fifteen other animals in this class were awarded a H.C. card.

GUERNSEYS.

Twenty-one Guernseys were tested as compared with only 16 in 1934.

Carl Holmes' "Dairymaid of Riduna" (34448) won the First Prize and Silver Medal for the second year in succession. Her milk yield amounted to 59.5 lbs. from which 3.825 lbs. of butter was obtained, giving a butter ratio of 1 : 15.56—an excellent performance. This cow also won the "Stagenhoe" Challenge Cup.

The Second Prize and Bronze Medal was awarded to Mrs. Yorke's cow "Peter's Jennette" (38137) with milk and butter yields of 48.6 lbs. and 2.78 lbs. respectively.

The Hon. A. E. Guinness' heifer "Reading Ina" (41446) was awarded the third position. This young animal gave 47.1 lbs. milk and 2.21 lbs. butter.

The Fourth place was occupied by E. D. Fairweather's cow "Rex's Primrose of Maison de Bas" (40601) with milk and butter yields of 49.2 lbs. and 2.235 lbs. respectively.

The Reserve in this class was Mrs. E. Rich's cow "Silverstead Nina" (31551).

Fifteen other cows obtained a H.C. card.

JERSEYS.

Twenty-two Jerseys were tested, as against 25 in 1934.

The First Prize and Silver Medal and the E.J.C.S. Gold Medal were awarded to J. W. McCallum's "Sonata" (8561) for the second year in succession.

This animal yielded 57.3 lbs. milk from which 3.18 lbs. butter was obtained. The National Butter Cup was also won by this cow.

The Second Prize and Bronze Medal and the E.J.C.S. Silver Medal were awarded to the Ovaltine Dairy Farm cow "Queen's Dream Lady" (24886) and milk and butter yields of 45.4 lbs. and 2,415 lbs. respectively.

The Third place and the E.J.C.S. Bronze Medal were won by J. W. McCallum's cow "Foxwarren Harriet" (10877). Her milk yield amounted to 57.3 lbs. from which 3.18 lbs. of butter was obtained.

The Fourth Prize went to Col. Lord Digby's cow "Minterne Mary" (13865). This cow yielded 42.1 lbs. milk from which was obtained 2.295 lbs. butter.

The Reserve cow was M. F. North's "Gracious Lady" (10941).

Seventeen other cows of this breed obtained H.C. cards.

DEVONS.

Only four Devons were tested.

The Prize of £3 was awarded to H. G. Mayo's cow "Corton Comet" (43491). Her milk yield was 58.8 lbs. from which 2,225 lbs. of butter was obtained. This cow was awarded the "Busk" Cup.

The Reserve number was H. G. Mayo's cow "Corton Orange" (43500).

G. E. Braddick's cow "Ruby 4th" (B.1497) was the Reserve for the "Busk" Cup.

WELSH BLACKS.

Six cows of this breed were tested.

The Prize of £3 was awarded to the Hon. Lady Shelley Rolls' cow "Grace" (11320). This animal yielded 73.6 lbs. milk from which 3.045 lbs. of butter was churned.

The Prize of £2 went to Mr. E. H. Spottiswoode's cow "Gwern Endeavour" (11233) with milk and butter yields of 47.6 lbs. and 2.21 lbs. respectively.

The Reserve number was N. Vosper's cow "Llanychan Tetsi" (10458).

DEXTERS.

Lady Loder's cow "Grinstead Nightingale 3rd" (3626) was awarded the prize of £3 and the "Loder" Cup.

TROPHIES AND CUPS IN THE AWARDING OF WHICH BUTTER TEST POINTS ARE TAKEN INTO CONSIDERATION.

	Winner No.	Reserve No.
The B.D.F.A. Supreme Championship	260	7
Morrison Trophy	172	115
Spencer Cup	260	114
National Butter Cup	377	356
Shorthorn Butter Cup	5	33
South Devon Herd Book Cup ...	173	172
Busk Cup (Devons)	186	189
Thornton Cup (Red Polls)	208	192
Rowallan Cup (Ayrshires)	260	280
Stagenhoe Cup (Guernseys)	310	322
Blythwood Production Bowl (Jerseys)	349	356
Loxwood Jubilee Cup (Jerseys) ...	371	356
Loder Cup (Dexters)	389	—
£25 Shorthorn Prize	66	13

The following table gives the average results for all breeds competing from 1920 :—

Year.	Total No. of Cows.	Average weight 24 hours' Milk.	Average Yield of Butter.		Average Butter Ratio.	Average No. fo Points.
		lbs.	lbs.	ozs.		
1920...	111	39	1	9¼	24.21	28.25
1921...	173	39¾	1	6½	25.35	27.68
1922...	187	42½	1	8¼	27.99	26.31
1923...	143	41¾	1	11½	24.03	32.23
1924...	148	43½	1	12½	24.21	32.55
1925...	154	46¼	1	13½	25.59	32.61
1926...	149	49½	1	15½	26.69	34.68
1928...	133	49¼	1	14¼	27.00	33.93
1929...	130	52½	1	13½	28.69	32.48
1930...	147	50¼	1	13¾	28.47	30.12
1931...	140	57¼	2	0	28.74	34.43
1932...	159	56¼	1	15¾	29.40	32.93
1933...	138	51.8	1.91		27.15	32.91
1934...	165	55.5	2.0		27.78	34.58
1935...	165	55.8	2.191		25.6	34.94

The average weight of the animals entered for the Butter Tests were :—

	lbs.		lbs.		lbs.		lbs.
P. Shorthorns ...	1,274	British Friesians	1,300	Red Polls ...	1,191	Guernseys	1,056
N.P. Shorthorns	1,262	S. Devons ...	1,583	Welsh Blacks	1,267	Jerseys ...	935
Lincoln Reds ...	1,425	Devons	1,481	Ayrshires ...	1,164	Dexters	770

TABLE I.—NUMBER OF CATTLE TESTED SINCE 1901.

Breed.	1901 to 1911	1912	1913	1914	1915	1919	1920	1921	1922	1923	1924	1925	1926	1928	1929	1930	1931	1932	1933	1934	1935
Shorthorns	236	30	26	20	20	24	30	63	39	34	18	15	23	20	27	21	26	24	18	22	22
Lincoln Reds	38	6	5	4	2	4	4	7	7	9	8	10	4	4	4	8	8	5	4	3	10
British Friesians	—	—	—	1	2	2	15	10	24	13	23	19	25	19	16	19	16	30	19	16	19
South Devons	25	4	2	6	3	—	—	5	5	3	—	3	1	7	9	12	9	19	14	12	10
Devons	—	—	—	—	—	5	2	6	7	5	3	8	1	2	1	2	—	4	—	4	4
Red Polls	63	1	—	—	1	11	12	17	23	13	17	6	17	17	13	23	22	10	16	26	28
Blue Albions	—	—	—	—	—	—	—	—	—	—	4	5	4	—	2	1	1	—	—	—	—
Welsh Blacks	—	—	—	—	—	—	—	—	4	—	—	2	1	—	—	—	—	—	4	3	6
Ayrshires	13	4	—	—	—	—	—	2	20	16	15	31	26	25	18	21	21	22	12	30	22
Guernseys	31	2	6	5	7	16	14	19	15	10	16	18	14	10	10	12	20	12	20	16	21
Jerseys	205	7	18	9	10	22	21	24	27	25	32	24	25	22	22	22	18	27	24	25	22
Kerries	10	—	5	—	—	4	8	17	13	7	10	7	5	2	4	1	4	1	—	5	—
Dexters	8	—	—	—	—	6	5	3	3	8	2	3	3	5	4	5	5	5	7	3	1
TOTALS	629	54	62	45	45	94	111	173	187	143	148	151	149	133	130	147	140	159	138	165	165

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1925, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS AND POINTS.

Year.	No.	Breed.	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs. ozs.	lbs.	
1926	23	Shorthorns	43	1 13¾	27.05	31.01
1928	20	,,	60	1 4¾	34.12	23.13
1929	27	,,	51	1 9	31.62	26.79
1930	21	,,	50	1 9	31.98	26.86
1931	26	,,	53	1 14	33.92	31.73
1932	24	,,	38	1 14½	35.13	31.13
1933	18	,,	42	1 14	30.34	31.84
1934	22	,,	47	1 9	36.78	29.89
1935	22	,,	43	2.19	28.19	35.43
1926	4	Lincoln Reds	31	2 8½	22.57	40.76
1928	4	,,	33	2 2	29.76	34.06
1929	4	,,	33½	2 3¼	28.39	35.30
1930	8	,,	60½	2 0½	31.60	35.01
1931	8	,,	28	2 1½	31.00	33.59
1932	5	,,	30	1 10	36.65	26.10
1933	4	,,	57	1 11½	32.82	30.40
1934	3	,,	80	1 10¼	26.78	30.50
1935	10	,,	53	2.22	26.53	35.62
1926	25	British Friesians	52	2 4¼	28.97	38.13
1928	19	,,	52	1 14	33.45	31.74
1929	16	,,	31¾	1 15½	37.78	31.37
1930	19	,,	64½	1 14	32.65	32.18
1931	16	,,	34	2 3	34.60	35.15
1932	30	,,	28	1 15½	35.48	32.02
1933	19	,,	28	2 5¼	30.17	37.74
1934	16	,,	42	2 5	33.36	38.92
1925	19	,,	34	2.33	30.17	37.58
1926	1	South Devons	88	3 2½	21.63	55.30
1928	2	,,	54	2 3½	25.67	37.40
1929	3	,,	95	2 6¾	26.65	44.03
1930	6	,,	47¾	2 3	26.68	35.54
1931	9	,,	54	2 3	25.70	37.10
1932	19	,,	65	1 13¾	27.26	32.57
1933	14	,,	34	1 14	26.40	30.10
1934	12	,,	39	2 2¼	26.20	35.02
1935	10	,,	50	2.24	23.52	35.90
1928	5	Dairy South-Devon	116	2 8½	19.41	47.78
1929	6	,,	93	2 3¼	26.75	40.75
1930	6	,,	54	2 1½	27.15	37.39
1926	1	Devons	41	2 3¾	21.85	35.85
1928	2	,,	213	1 2	22.55	30.00
1929	1	,,	39	1 9	39.60	25.00
1930	2	,,	30	1 0¾	34.32	23.35
1932	4	,,	103	1 5	27.31	27.12
1934	4	,,	76	1 11½	25.19	31.50
1935	4	,,	42	1.95	27.06	31.37
1926	17	Red Polls	60	1 11	27.13	29.47
1928	17	,,	67	1 13¼	28.24	32.21
1929	13	,,	43	1 9	31.72	26.01
1930	23	,,	52¼	1 10¼	33.25	38.73
1931	12	,,	50	1 15¼	30.04	32.82
1932	10	,,	56	1 12¾	32.64	30.77
1933	16	,,	73	1 10	31.53	28.75
1934	26	,,	58	1 9	32.84	27.33
1935	28	,,	28	1.96	27.41	31.42

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1925, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS AND POINTS—*Continued.*

Year.	No.	Breed.	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs. ozs.	lbs.	
1926 ...	4	Blue Albions	50	1 14¼	31.16	32.16
1929 ...	2	,, ...	31	1 13¼	31.64	29.25
1930 ...	1	,, ...	58	2 8½	22.90	40.50
1931 ...	1	,, ...	26	1 10	30.10	26.00
1926 ...	1	Welsh Blacks	43	1 10¾	26.72	27.05
1933 ...	4	,, ...	42	1 13¾	29.66	30.43
1934 ...	3	,, ...	46	1 5	39.07	21.81
1935 ...	6	,, ...	31	2.01	23.66	32.33
1926 ...	26	Ayrshires	35	2 3¾	24.66	36.61
1928 ...	25	,, ...	36	2 3¾	25.69	36.38
1929 ...	18	,, ...	37¾	2 1	29.53	33.43
1930 ...	21	,, ...	54	2 2	27.02	34.05
1931 ...	21	,, ...	35	2 4½	27.20	36.19
1932 ...	22	,, ...	35	2 3½	28.72	36.58
1933 ...	12	,, ...	34	2 3¾	25.84	35.83
1934 ...	30	,, ...	32	2 5¼	25.60	37.28
1935 ...	22	,, ...	29	2.35	26.17	37.63
1926 ...	14	Guernseys	100	1 11	21.99	32.73
1928 ...	10	,, ...	110	1 13¾	21.75	35.34
1929 ...	10	,, ...	84	2 0¾	24.17	37.16
1930 ...	12	,, ...	49	1 14	27.14	32.42
1931 ...	20	,, ...	96	1 13¼	24.80	34.35
1932 ...	12	,, ...	80	1 11¼	26.09	31.23
1933 ...	20	,, ...	87	1 11	25.28	30.95
1934 ...	16	,, ...	94	1 14½	24.27	36.01
1935 ...	21	,, ...	102	2.07	22.40	33.30
1926 ...	25	Jerseys	126	1 14	19.39	37.61
1928 ...	22	,, ...	136	2 2¾	17.99	43.50
1929 ...	22	,, ...	145	1 13¼	19.86	37.94
1930 ...	22	,, ...	37	1 14	15.09	37.61
1931 ...	18	,, ...	108	2 4	19.90	42.39
1932 ...	27	,, ...	113	2 0¼	20.34	37.76
1933 ...	24	,, ...	87	2 2	21.18	38.05
1934 ...	25	,, ...	100	2 3½	20.69	41.27
1935 ...	22	,, ...	118	2.28	19.97	36.56
1926 ...	5	Kerries	39	1 10¼	25.13	26.82
1928 ...	2	,, ...	63	1 2¼	32.84	21.50
1929 ...	4	,, ...	89	1 9	25.82	29.66
1930 ...	1	,, ...	47	2 1	23.00	33.00
1931 ...	4	,, ...	41	1 7	28.80	23.95
1932 ...	1	,, ...	92	2 0½	20.93	37.70
1934 ...	5	,, ...	68	2 3	20.22	38.82
1926 ...	3	Dexters	102	1 4¼	27.97	25.56
1928 ...	5	,, ...	79	1 5½	25.49	25.55
1929 ...	4	,, ...	112	1 6	25.51	29.04
1930 ...	5	,, ...	35	1 5½	26.45	23.89
1931 ...	5	,, ...	106	0 14½	29.70	21.07
1932 ...	5	,, ...	153	1 1½	26.67	25.67
1933 ...	7	,, ...	109	1 0½	28.01	23.59
1934 ...	3	,, ...	143	1 5	25.36	30.23
1935 ...	1	,, ...	161	1.59	25.41	37.50

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS SINCE 1925.

Year.	Breed.	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk, 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1926	Shorthorns ...	17	1 15¾	5	1 9¼	—	—	1	1 3
1928	,, ...	9	1 5¼	6	1 6½	5	1 1½	—	—
1929	,, ...	17	1 10¾	6	1 6	3	1 3½	1	2 0¼
1930	,, ...	10	1 7	7	1 13¾	3	1 7	1	1 8
1931	,, ...	15	1 14½	6	1 11½	4	1 11	1	2 9½
1932	,, ...	19	1 7¼	5	1 9	—	—	—	—
1933	,, ...	15	1 15	—	—	3	1 10	—	—
1934	,, ...	14	1 15	6	1 11	2	1 1½	—	—
1935	,, ...	17	2.21	4	1.86	—	—	1	1.5
1926	Lincoln Reds ...	4	2 8½	—	—	—	—	—	—
1928	,, ...	4	2 2	—	—	—	—	—	—
1929	,, ...	4	2 3¼	—	—	—	—	—	—
1930	,, ...	4	2 3	2	2 3¾	2	1 10¾	—	—
1931	,, ...	8	2 1½	—	—	—	—	—	—
1932	,, ...	5	1 10	—	—	—	—	—	—
1933	,, ...	3	1 14¼	—	—	—	—	1	1 2½
1934	,, ...	2	1 8	—	—	—	—	1	1 15½
1935	,,	7	2.45	1	1.75	1	1.65	1	1.62
1926	British Friesians	15	2 4¼	6	2 3¾	3	1 8¼	1	2 4½
1928	,,	13	1 15	3	2 2½	3	1 4½	—	—
1929	,,	15	1 14	1	2 12	—	—	—	—
1930	,,	14	2 0	5	1 14¼	—	—	—	—
1931	,,	15	2 3¼	—	—	1	1 10	—	—
1932	,,	27	2 2	3	1 9¾	—	—	—	—
1933	,,	18	2 5	1	1 15	—	—	—	—
1934	,,	12	2 6½	2	1 8½	1	2 5½	1	3 1
1935	,, ...	18	2.38	1	1.415	—	—	—	—
1926	South Devons ...	—	—	1	3 2½	—	—	—	—
1928	,, ...	1	2 14	1	1 9	—	—	—	—
1929	,, ...	1	3 6	1	1 17	—	—	1	2 6½
1930	,, ...	6	2 3½	—	—	—	—	—	—
1931	,, ...	7	2 0¼	—	—	1	2 15½	1	2 9¼
1932	,, ...	9	1 12¾	7	1 14½	1	2 0	2	1 14½
1933	,, ...	13	1 13	1	3 0	—	—	—	—
1934	,, ...	9	2 2¾	3	2 1	—	—	—	—
1935	,, ...	8	2.33	1	2.12	—	—	1	1.62
1928	Dairy South Devon	—	—	1	2 6½	3	2 2½	1	3 12¾
1929	,, ...	1	2 10¾	3	1 15	1	1 13½	1	2 13½
1930	,, ...	3	2 3½	1	1 9	1	2 3¼	1	2 3¼
1926	Devons	1	2 3¾	—	—	—	—	—	—
1928	,, ...	—	—	—	—	—	—	1	1 1
1929	,, ...	1	1 9	—	—	—	—	—	—
1930	,, ...	—	—	1	0 9¼	—	—	1	1 8¼
1932	,, ...	1	1 4	1	1 2	1	1 12	1	1 2¼
1934	,, ...	—	—	3	2 0	1	0 15¼	—	—
1935	,, ...	3	1.98	1	1.9	—	—	—	—
1926	Red Polls ...	10	1 10½	4	1 11¾	2	1 13½	1	1 9
1928	,, ...	7	1 13	7	1 13	2	1 15¾	1	1 13
1929	,, ...	9	1 9¼	4	1 8¾	—	—	—	—
1930	,, ...	12	1 10½	8	1 10	2	1 7	1	2 7
1931	,, ...	9	1 15¾	2	1 9	—	—	1	2 6½
1932	,, ...	5	2 0½	4	1 9¾	—	—	1	1 6¾
1933	,, ...	5	1 12	9	1 9½	1	1 8	—	—
1934	,, ...	14	1 11	9	1 6	1	2 6¾	2	0 15¾
1935	,, ...	18	2.23	7	1.619	2	1.635	1	2.03

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS SINCE 1925—*Continued.*

Year.	Breed.	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk, 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1926	Blue Albions ...	3	1 14¾	—	—	1	1 12¼	—	—
1929	,, ...	2	1 13¼	—	—	—	—	—	—
1930	,, ...	1	2 8½	—	—	—	—	—	—
1931	,, ...	1	1 10	—	—	—	—	—	—
1926	Welsh Blacks ...	1	1 10¾	—	—	—	—	—	—
1933	,, ...	3	2 2	1	1 12	—	—	—	—
1934	,, ...	2	1 7½	1	0 15¾	—	—	—	—
1935	,, ...	6	2.01	—	—	—	—	—	—
1926	Ayrshires ...	21	2 3½	4	2 4½	1	2 7½	—	—
1928	,, ...	21	2 4¾	3	1 13¼	1	2 0½	—	—
1929	,, ...	14	2 2	4	1 15	—	—	—	—
1930	,, ...	20	2 2¼	1	1 10¾	—	—	—	—
1931	,, ...	18	2 4½	3	1 14½	—	—	—	—
1932	,, ...	19	2 3¼	2	2 9	1	2 2	—	—
1933	,, ...	10	2 2½	2	2 8	—	—	—	—
1934	,, ...	30	2 5¼	—	—	—	—	—	—
1935	,, ...	22	2.35	—	—	—	—	—	—
1926	Guernseys ...	2	2 6¼	5	1 5¾	4	1 13¾	2	1 8
1928	,, ...	3	1 14¼	3	2 0¾	1	1 11	1	2 3¼
1929	,, ...	4	2 0¼	3	2 8½	1	1 15	2	1 7
1930	,, ...	5	1 10½	5	2 1¼	—	—	1	1 11½
1931	,, ...	4	1 13¾	9	1 13¾	3	1 11¾	2	1 8¼
1932	,, ...	5	1 8	3	1 8	2	2 4	2	1 14¾
1933	,, ...	8	1 14¼	5	1 12½	4	1 7	1	0 14¾
1934	,, ...	2	2 1	8	1 15¾	4	1 13¼	2	1 10½
1935	,, ...	7	2.343	5	1.764	4	2.126	3	2.075
1926	Jerseys	2	2 0¾	7	1 11¼	7	1 12¾	7	1 15½
1928	,, ...	2	2 11½	2	2 6¾	7	2 2¼	8	2 1¼
1929	,, ...	2	1 8	5	2 2½	—	—	9	1 11
1930	,, ...	3	1 15½	7	1 15½	4	1 15	9	1 14¼
1931	,, ...	5	2 7¾	3	2 4	4	2 1	5	2 4
1932	,, ...	5	2 1	7	2 3½	6	2 3	7	1 12¾
1933	,, ...	10	2 1½	3	2 3½	7	2 1	2	2 7
1934	,, ...	4	2 5¼	9	2 5	5	2 2¼	5	2 2
1935	,, ...	4	2.58	5	2.516	5	2.24	4	2.12
1926	Kerries	4	1 12¼	1	1 2½	—	—	—	—
1928	,, ...	1	0 15½	—	—	1	1 5	—	—
1929	,, ...	1	2 3¼	3	1 5¼	—	—	—	—
1930	,, ...	1	2 1	—	—	—	—	—	—
1931	,, ...	2	1 8½	2	1 6	—	—	—	—
1932	,, ...	—	—	1	2 0½	—	—	—	—
1934	,, ...	2	2 6¾	2	1 15¾	—	—	1	2 2½
1926	Dexters ...	1	1 2¾	1	1 3½	—	—	1	1 6¼
1928	,, ...	1	1 4	3	1 7¾	—	—	1	1 0½
1929	,, ...	—	—	2	1 8½	—	—	2	1 3½
1930	,, ...	3	1 6	1	1 5	1	1 5	—	—
1931	,, ...	—	—	2	1 0½	2	1 0	1	0 8
1932	,, ...	—	—	—	—	3	1 2	1	1 2½
1933	,, ...	1	1 0½	1	0 11	1	1 7	3	1 0¼
1934	,, ...	—	—	1	1 12¾	—	—	2	2 1
1934	,, ...	—	—	—	—	—	—	1	1.59

BUTTER TESTS—SHORTHORNS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1935		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs		Colour	Quality				
3	Maj. G. Miller Mundy	Knells Elliot Fernleaf 2nd	1326	Mar. 16, 1929	Apr. 22	182	14.3	16.1	14.6	45.0	1	8	30.00	Good	Good	24.00	12.0	36.00	H.C.
5	Capt. A. S. Wills	Thornby Foggathorpe 30th	1503	June 6, 1927	July 31	82	18.2	23.1	20.0	61.3	2	14½	21.14	Good	Fair	46.50	4.2	50.70	1st Prize
7	E. H. Birley ...	Harescombe Margaret	1269	Feb. 14, 1929	Sept. 15	36	26.8	25.4	26.3	78.5	2	13½	27.64	Good	Good	45.50	—	45.50	3rd Prize
13	C. J. Allday ...	Fothering Moss Rose	1344	Nov. 26, 1928	Oct. 1	20	27.2	25.6	25.5	78.3	2	11¾	28.63	Fair	Good	43.75	—	43.75	H.C.
17	A. Brittain & Son	Steppingley Clover's Gift 4th	1501	Sept. 28, 1927	Sept. 9	42	27.4	30.0	27.3	84.7	2	7	34.71	Good	Good	39.00	0.2	39.20	H.C.
20	R. Tustian ...	Greattew Daphne	1390	June 25, 1930	Sept. 17	34	25.6	25.5	24.3	75.4	2	10½	28.45	Pale	Fair	42.50	—	42.50	H.C.
22	Maj. G. Miller Mundy	Redrice Darling 4th	1318	Jan. 14, 1932	Sept. 25	26	20.2	19.4	17.7	57.3	1	12½	32.19	V.Good	Fair	28.50	—	28.50	H.C.
25	St. Clere Estates, Ltd.	St. Clere Daffodil 13th	1464	Aug. 31, 1930	Sept. 27	24	17.8	17.6	18.4	53.8	2	1¼	25.93	Good	Good	33.25	—	33.25	H.C.
27	St. Clere Estates, Ltd.	St. Clere Ruby 6th	1267	Nov. 4, 1931	Oct. 4	17	23.0	21.7	22.7	67.4	2	7	27.62	Fair	Good	39.00	—	39.00	H.C.
29	J. P. Morgan ...	Aldenham Ringlet 10th	1318	Oct. 24, 1930	Aug. 29	53	22.7	22.1	20.3	65.1	1	8	43.40	Pale	Good	24.00	1.3	25.30	
32	C. J. Allday ...	Fothering Babette 2nd	1338	Oct. 4, 1930	Aug. 28	54	22.8	20.2	20.6	63.6	1	12½	35.73	Fair	Good	28.50	1.4	29.90	H.C.
33	C. J. Allday ...	Fothering Foggathorpe 2nd	1172	Apr. 21, 1932	Sept. 30	21	22.4	19.8	18.6	60.8	2	13¼	21.52	Good	Good	45.25	—	45.25	4th Prize
34	University of Edinburgh	Eaton Rosebud 7th	1111	Oct. 31, 1931	Sept. 13	38	20.2	19.9	20.0	60.1	2	3	27.57	Pale	Fair	35.00	—	35.00	H.C.
37	Kidner Bros. ...	Stokleycross Royal Flower 2nd	1478	Oct. 4, 1930	Sept. 15	36	21.5	19.9	22.7	64.1	2	5	27.75	Fair	Good	37.00	—	37.00	H.C.
49	W. H. Vigus ...	Revels Graceful Lady	1320	Aug. 29, 1931	Sept. 16	35	24.9	24.0	25.0	73.9	2	12	26.87	Pale	Fair	44.00	—	44.00	Reserve
65	Cambridge University Farm	Daisy 5th	1437	Nov. 18, 1928	Sept. 21	31	22.1	18.2	16.3	56.6	1	10¾	33.99	Pale	Fair	26.75	—	26.75	
66	Cambridge ... University Farm	Cantab Janet 3rd	1387	July 30, 1930	Sept. 17	34	24.8	22.9	23.8	71.5	2	9¾	27.45	Pale	Fair	41.75	—	41.75	H.C.

BUTTER TESTS—SHORTHORNS—*Continued.*

No. in Catalogue.	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
70	Tudge & Maybery	Whittingslow Onyx	1260	Jan. 21, 1929	Sept. 28	23	24.0	23.2	21.5	68.7	2	3	31.51	V.Good	Good	35.00	—	35.00	H.C.
74	J. H. Robinson	Garnet's Jewel	1340	July 21, 1931	Oct. 4	17	17.9	18.9	17.6	54.4	2	4¼	24.02	Fair	Good	36.25	—	36.25	H.C.
75	J. H. Robinson	Warings Milkmaid	1198	1932	Oct. 4	17	17.4	18.0	17.7	53.1	2	3¼	24.19	Fair	Good	35.25	—	35.25	H.C.
76	Cambridge University Farm	Cantab Janet 4th	1099	Dec. 4, 1932	Sept. 20	31	16.6	16.4	16.0	49.0	2	1¼	23.61	V.Pale	Fair	33.25	—	33.25	H.C.
77	Napsbury Mental Hospital	Topsy	1122	Jan. 2, 1933	July 21	92	10.7	10.3	10.3	31.3	0	15½	32.27	Good	Good	15.50	5.2	20.70	
86	F. R. Wood ...	Bendish Nancy 25th	1313	Dec. 22, 1931	Sept. 12	39	20.2	20.6	17.5	58.3	2	2	27.50	V. Pale	Fair	34.00	—	34.00	H.C.
87	Chivers & Sons, Ltd.	Histon Dairymaid 65th	1235	Aug. 28, 1930	Sept. 19	32	22.8	23.4	21.7	67.9	2	6	28.65	Good	Good	38.00	—	38.00	H.C.
88	Chivers & Sons, Ltd.	Histon Fanny 6th	1462	Jan. 22, 1928	Sept. 22	29	21.6	21.9	21.0	64.5	3	0¼	21.39	Good	Good	48.25	—	48.25	2nd Prize
90	Chivers & Sons, Ltd.	Histon Duchess 20th	1348	Aug. 28, 1930	Sept. 15	36	22.6	24.2	23.8	70.6	2	8¼	28.07	Good	Good	40.25	—	40.25	H.C.
91	F. Sainsbury ...	Burton Hempy 13th	1610	Sept. 28, 1925	Oct. 1	20	21.9	21.6	21.7	65.2	2	9½	25.17	Pale	Good	41.50	—	41.50	H.C.
92	F. Sainsbury ...	Bendish Poppy 9th	1488	Feb. 28, 1925	July 3	110	15.6	16.5	16.2	48.3	1	10½	29.27	Pale	Good	26.50	7.0	33.50	
94	J. Evens & Son	Burton Cherry 15th	1576	Aug. 26, 1930	Aug. 31	51	19.0	18.2	17.5	54.7	1	12	31.26	Good	Good	28.00	1.1	29.10	H.C.
96	J. Evens & Son	Burton Ruby Spot 23rd	1300	Sept. 7, 1926	Sept. 29	22	21.6	21.9	22.0	65.5	2	7¼	26.68	Good	Good	39.25	—	39.25	H.C.
97	Scothern Dairy Co.	Lobthorpe Princess	1637	Feb. , 1929	May 6	168	14.0	13.7	11.4	39.1	1	10	24.14	Pale	Good	26.00	12.0	38.00	H.C.
98	Scothern Dairy Co.	Curlieu Lassie 4th	1286	Apr. 1, 1926	Sept. 26	25	18.3	18.9	18.6	55.8	2	2½	25.95	Fair	Good	34.50	—	34.50	H.C.

BUTTER TESTS—SHORTHORNS—*Continued.*

No. in Cata-logue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
3	Knells Elliott Fernleaf 2nd	9 8 a.m.	9 34 a.m.	26	58	52	56
5	Thornby Foggathorpe 30th	9 5 ,,	9 18 ,,	13	58	52	54
7	Harescombe Margaret	9 8 ,,	9 25 ,,	17	58	52	54
13	Fothering Moss Rose	9 5 ,,	9 45 ,,	40	58	52	54
17	Steppingley Clover's Gift 4th	9 7 ,,	9 29 ,,	22	58	52	55
20	Greattew Daphne	9 32 ,,	10 12 ,,	40	59	52	54
22	Redrice Darling 4th	10 5 ,,	10 25 ,,	20	59	52	55
25	St. Clere Daffodil 13th	9 55 ,,	10 35 ,,	40	59	52	54
27	St. Clere Ruby 6th	9 11 ,,	9 53 ,,	42	59	52	56
29	Aldenham Ringlet 10th	9 27 ,,	9 58 ,,	31	59	52	54
32	Fothering Babette 2nd	9 16 ,,	9 42 ,,	26	59	52	54
33	Fothering Foggathorpe 2nd	12 42 p.m.	1 25 p.m.	43	63	52	55
34	Eaton Rosebud 7th	9 37 a.m.	10 1 a.m.	24	59	52	53
37	Stokeleycross Royal Flower 2nd	9 32 ,,	9 55 ,,	25	59	52	54
49	Revels Graceful Lady	9 18 ,,	9 43 ,,	25	59	52	54
65	Daisy 5th	10 5 ,,	10 20 ,,	15	59	52	53
66	Cantab Janet 3rd	10 25 ,,	10 47 ,,	22	59	52	54
70	Whittingslow Onyx	9 55 ,,	10 12 ,,	17	59	52	54
74	Garnets Jewel	10 18 ,,	10 46 ,,	24	59	52	54
75	Warings Milkmaid	10 20 ,,	10 35 ,,	15	59	52	54
76	Cantab Janet 4th	10 25 ,,	11 0 ,,	35	59	52	55
77	Topsy	10 57 ,,	11 35 ,,	38	60	52	55
86	Bendish Nancy 25th	11 0 ,,	11 31 ,,	31	60	52	55
87	Histon Dairymaid 65th	11 35 ,,	11 55 ,,	20	61	52	55
88	Histon Fanny 6th	11 53 ,,	12 10 p.m.	17	61	52	54
90	Histon Duchess 20th	12 30 p.m.	12 45 ,,	15	63	52	54
91	Burton Hempy 13th	11 53 a.m.	12 0 noon	7	61	55	56
92	Bendish Poppy 9th	11 26 ,,	11 52 a.m.	26	60	52	55
94	Burton Cherry 15th	11 40 ,,	12 10 p.m.	30	61	52	54
96	Burton Ruby Spot 23rd	11 35 ,,	11 50 a.m.	15	61	52	56
97	Lobthorpe Princess	11 16 ,,	11 40 ,,	24	60	52	55
98	Curlieu Lassie 4th	11 50 ,,	12 31 p.m.	41	61	52	56

BUTTER TESTS—BRITISH FRIESIANS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1935		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs		Colour	Quality				
111	A. Weightman	Chellaston Eva	1332	Mar. 26, 1930	Sept. 18	33	23.1	22.0	21.4	66.5	1	15¾	33.50	V.Good	Good	31.75	—	31.75	H.C.
112	A. Weightman	Herrington Keg O'Milk	1578	July 19, 1930	Oct. 3	18	26.3	26.5	26.6	79.4	2	15	27.01	Good	Good	47.00	—	47.00	H.C.
114	C. Ball	Abingworth Dainty	1322	Aug. 2, 1928	Sept. 27	24	27.5	27.2	28.1	82.8	3	5¼	24.90	Good	Fair	53.25	—	53.25	1st Prize
115	J. H. Brown ...	Marshgreen Kathleen	1395	Sept. 6, 1929	Sept. 20	31	29.8	27.2	29.5	86.5	3	2	27.72	Good	Fair	50.00	—	50.00	4th Prize
119	Mrs. C. Bayley...	Packthorne Gertie	1488	1930	Sept. 27	24	23.7	21.3	21.6	66.6	2	10½	25.13	Good	Good	42.50	—	42.50	H.C.
120	Mrs. C. Bayley...	Willaston Magnet 5th	1255	May 5, 1928	Sept. 26	25	27.5	18.8	24.4	70.7	2	1½	33.83	Fair	Good	33.50	—	33.50	
122	J. Martin ...	Netherhall Jean	1242	Oct. 24, 1927	Sept. 22	29	27.7	27.7	26.1	81.5	3	4	25.08	Pale	Good	52.00	—	52.00	2nd Prize
123	F. N. Terry ...	Chebbard Janrosa	1305	Feb. 11, 1929	Oct. 6	15	28.1	26.2	24.2	78.5	2	6¾		Disq.					
127	A. J. Creed ...	Hawthorn Katja	1438	May 6, 1927	Oct. 5	16	24.9	24.1	23.4	72.4	2	10¼	27.48	Fair	Good	42.25	—	42.25	H.C.
132	Lord Rayleigh	Terling Lead 42nd	1293	May 11, 1932	Sept. 12	39	25.6	29.9	26.3	81.8	2	9½	31.58	V.Pale	Fair	41.50	—	41.50	H.C.
133	C. Ball	Abingworth Hazel	1236	Mar. 9, 1932	Sept. 28	23	27.0	26.7	26.8	80.5	3	2½	25.56	Good	Fair	50.50	—	50.50	3rd Prize
134	J. H. Brown ...	Marshgreen Bessie	1108	July 30, 1931	Sept. 18	33	28.4	27.1	28.2	83.7	2	15¾	28.04	Fair	Good	47.75	—	47.75	Reserve
136	T. G. Fairhead	Grittleton Lucky 8th	1254	Aug. 30, 1930	Aug. 7	75	26.5	25.4	22.9	74.8	1	6¾	52.86	Pale	Good	22.75	3.50	26.25	
138	F. N. Terry ...	Chebbard Demifrits	1182	Jan. 14, 1931	Sept. 22	29	26.2	23.8	22.6	72.6	2	4½	31.84	Good	Good	36.50	—	36.50	H.C.
140	W. Curtis & Son	Barwyke Myrtle Leaf	1237	Aug. 30, 1931	Sept. 9	42	22.4	21.3	20.3	64.0	2	8	25.60	Fair	Good	40.00	0.2	40.20	H.C.
141	G. J. Caddey ...	Egham Thelma 3rd	1361	Feb. 13, 1931	Aug. 26	56	25.6	24.9	26.3	76.8	2	9¼		Disq.					
142	G. J. Caddey ...	Egham Marigold 6th	1386	Sept. 29, 1931	Sept. 5	46	21.4	19.3	19.8	60.5	2	1	29.37	Good	Good	33.00	0.60	33.60	H.C.

BUTTER TESTS—BRITISH FRIESIANS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
143	G. J. Caddey ...	Egham Titania 6th	1192	Sept. 25, 1931	Sept. 10	41	19.3	18.6	15.9	53.8	2	0¼	26.70	V.Good	Good	32.25	0.10	32.35	H.C.
147	C. Ball	Oakham Dainty Gem	1302	Oct. 2, 1932	Sept. 4	47	17.7	19.4	18.0	55.1	1	13½	29.95	Fair	Good	29.50	0.70	30.20	H.C.
148	C. Ball	Oakham Dolce	1132	Jan. 1, 1933	Sept. 15	36	16.8	16.0	16.5	49.3	1	5¾	36.38	Fair	Good	21.75	—	21.75	
149	T. G. Fairhead	Bordeaux Marvel	1269	Oct. 8, 1932	Sept. 6	45	18.5	20.1	15.4	54.0	0	6½	135.0	Pale	Fair	6.50	0.5	7.00	

BUTTER TESTS—BRITISH FRIESIANS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
111	Chellaston Eva	1 54 p.m.	2 20 p.m.	26	61	52	56
112	Herrington Keg O'Milk	12 40 ,,	12 57 ,,	17	63	52	55
114	Abingworth Dainty	1 45 ,,	2 8 ,,	8	61	52	54
115	Marshgreen Kathleen	12 17 ,,	1 2 ,,	45	63	52	55
119	Packthorne Gertie	2 6 ,,	2 20 ,,	14	61	52	54
120	Willaston Magnet 5th	3 32 ,,	3 54 ,,	22	62	52	53
122	Netherhall Jean	12 27 ,,	12 45 ,,	18	63	52	56
127	Hawthorn Katja	2 25 ,,	2 37 ,,	12	61	52	56
132	Terling Lead 42nd	2 27 ,,	3 0 ,,	33	61	52	57
133	Abingworth Hazel	2 30 ,,	2 45 ,,	15	61	52	53
134	Marshgreen Bessie	2 30 ,,	3 5 ,,	35	61	52	56
136	Grittleton Lucky 8th	2 50 ,,	3 25 ,,	35	62	52	55
138	Chebbard Demifrits	2 55 ,,	3 17 ,,	22	62	52	53
140	Barwyke Myrtle Leaf	3 14 ,,	3 45 ,,	31	62	52	54
142	Egham Marigold 6th	3 25 ,,	3 55 ,,	30	62	52	56
143	Egham Titania 6th	3 48 ,,	5 26 ,,	53	62	52	54
147	Oakham Dainty Gem	3 40 ,,	4 0 ,,	20	62	52	54
148	Oakham Dolce	4 0 ,,	4 27 ,,	27	62	52	56
149	Bordeaux Marvel	2 53 ,,	6 30 ,,	237	62	52	55

BUTTER TESTS—RED POLLS.

No. in Catalogue.	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No of Points for Butter	No of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
190	Earl of Radnor	Longford Bitter Sweet	1334	Oct. 15, 1927	Sept. 5	46	24.9	23.9	22.9	71.7	2	10¾	26.90	Good	Good	42.75	0.60	43.35	4th Prize
191	Earl of Radnor	Longford Ruby 7th	1080	July 16, 1928	Sept. 1	50	20.7	19.5	20.3	60.5	2	6¼	25.35	Good	Good	38.25	1.00	39.25	H.C.
192	Lt.Col. Sir Merrik R. Burrell, Bt.	Knepp Cowslip 14th	1171	Feb. 5, 1929	Oct. 1	20	18.5	19.3	17.8	55.6	3	1½	17.99	Fair	Fair	49.50	—	49.50	1st Prize
194	Lt.-Col. H. E. Hambro	Culford Maple ...	1232	Mar. 28, 1927	Aug. 26	56	18.3	17.6	18.4	54.3	1	13½	29.51	Pale	Fair	29.50	1.60	31.10	
195	Sir Woodman Burbidge, Bt.	Hyders Daffodil	1286	Mar. 3, 1930	July 10	103	18.9	19.5	19.6	58.0	2	0¾	28.36	V. Pale	Fair	32.75	6.30	39.05	H.C.
196	Mrs. R. M. Foot	White Hill Red Briar	1215	Mar. 2, 1929	Sept. 1	50	14.8	13.9	13.8	42.5	1	5¼	32.08	Fair	Fair	21.25	1.00	22.25	
197	Mrs. R. M. Foot	White Hill Charming Delight	1088	Jan. 4, 1930	Sept. 10	41	21.1	20.2	20.0	61.3	2	8½	24.23	Pale	Good	40.50	0.10	40.60	H.C.
198	C. H. Cearn ...	Ashmoor Briony	1218	Nov. 28, 1928	Aug. 16	66	15.1	15.7	13.2	44.0	1	8¾	28.48	Pale	Good	24.75	2.60	27.35	
199	C. H. Cearn ...	Weston Peggy	1227	Mar. 17, 1928	Aug. 25	57	22.5	21.5	21.6	65.6	2	6½	27.33	Pale	Fair	38.50	1.70	40.20	H.C.
200	A. W. Gordon ...	Sporle Elm Lady	1428	Jan. 8, 1929	Oct. 7	14	17.2	17.0	17.7	51.9	2	1¾	24.66	Good	Fair	33.75	—	33.75	
201	Stuart Paul ...	Holton Rainbow 6th	1482	Aug. 17, 1926	Oct. 3	18	22.1	23.1	21.8	67.0	2	9	26.17	Good	Fair	41.00	—	41.00	H.C.
202	Stuart Paul ...	Samford Witchgirl	1098	Dec. 10, 1928	Sept. 10	41	21.1	23.2	24.5	68.8	2	8	27.52	Good	Fair	40.00	0.10	40.10	H.C.
208	Mrs. H. D. Lewis	Eastwell Marshmallow	1242	Sept. 21, 1929	Oct. 2	19	19.7	20.8	20.9	61.4	2	14¼	21.28	Fair	Fair	46.25	—	46.25	2nd Prize
209	Mrs. H. D. Lewis	Combwell Rosie	1145	Feb. 21, 1930	Sept. 22	29	23.7	24.5	22.6	70.8	2	13	25.20	Fair	Fair	45.00	—	45.00	3rd Prize
210	Mrs. C. C. Courtauld	Seven Springs Quintal	1363	Sept. 18, 1927	June 24	119	20.5	12.6	17.0	50.1	1	3¾	40.90	Pale	Fair	19.75	7.90	26.75	
211	Mrs. G. Meinertzhagen	Framlingham Delight	1290	July 24, 1929	Aug. 8	74	11.9	12.2	16.5	40.6			Disq.						

BUTTER TESTS—RED POLLS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
216	Capt. A. Richardson	Seven Springs Question	1266	July 17, 1931	Sept. 14	37	14.0	13.9	13.2	41.1	1	4	32.88	V.Good	Fair	20.00	—	20.00	
217	E. G. Dawson ...	Yoxford Charlotte 4th	1114	Dec. 3, 1931	Aug. 8	74	15.6	14.0	15.4	45.0	1	11	26.62	V.Good	Good	27.00	3.40	30.40	H.C.
218	Sir Woodman Burbidge, Bt.	Beeding Rose 2nd	1198	Oct. 13, 1930	Sept. 14	37	17.7	17.7	18.7	54.1	1	13¼	29.64	Fair	Good	29.25	—	29.25	H.C.
219	Mrs. R. M. Foot	White Hill Monk's Flight	1068	Dec. 12, 1931	Sept. 9	42	30.3	24.2	23.9	78.4	1	13½		Disq.					
221	Stuart Paul ...	Kirton Sundial	1110	Jan. 27, 1932	May 27	147	17.5	18.9	17.0	53.4	2	0½	26.31	Pale	Fair	32.50	10.70	43.20	Reserve
222	Stuart Paul ...	Ashmoor Marvel	1100	July 5, 1931	Sept. 18	33	19.0	19.1	19.3	57.4	2	2¼	26.89	Pale	Fair	34.25	—	34.25	H.C.
224	Stuart Paul ...	Fersfield Pear Bloom	1345	June 25, 1932	Oct. 1	20	13.9	15.3	13.8	43.0	1	14½	22.63	Good	Fair	30.50	—	30.50	H.C.
225	Brooks (Mistley), Ltd.	Mistley Amethyst	1248	June 24, 1931	Sept. 17	34	24.0	21.9	21.1	67.0	2	1¾	31.83	Fair	Fair	33.75	—	33.75	H.C.
231	Mrs. R. M. Foot	White Hill Charming Rosemary	1010	Dec. 28, 1932	Sept. 29	22	15.1	13.3	12.6	41.0	1	3½	33.88	Pale	Fair	19.50	—	19.50	
234	Stuart Paul ...	Kirton Oaken ...	992	Nov. 5, 1932	Aug. 14	68	14.8	14.3	13.5	42.6	1	1	40.19	Pale	Fair	17.00	2.80	19.80	
235	Stuart Paul ...	Foxearth Bella 2nd	1280	Feb. 23, 1933	Oct. 7	14	6.9	6.7	6.6	20.2	0	11¾	27.48	Good	Good	11.75	—	11.75	
236	Brooks (Mistley), Ltd.	Mistley Lilac 2nd	1051	Dec. 25, 1932	Sept. 1	50	15.3	14.7	14.6	44.6	1	4	35.68	V. Pale	Fair	20.00	1.0	21.00	
237	J. G. Gray ...	Abbeycombe Rosina	1039	Aug. 7, 1932	Aug. 31	51	20.2	20.6	19.1	59.9	1	14¼	31.78	Pale	Fair	30.25	1.1	31.35	H.C.
238	J. G. Gray ...	Abbeycombe Heather	1010	Sept. 2, 1932	Sept. 13	38	17.7	16.4	18.1	52.2	1	14¾	27.26	V. Pale	Fair	30.75	—	30.75	H.C.

BUTTER TESTS—RED POLLS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
190	Longford Bitter Sweet	8 52 a.m.	9 11 a.m.	19	58	52	53
191	Longford Ruby 7th	8 57 ,,	9 15 ,,	18	59	52	53
192	Knepp Cowslip 14th	10 25 ,,	10 35 ,,	10	59	52	54
194	Culford Maple	10 11 ,,	10 34 ,,	23	59	52	53
195	Hyders Daffodil	8 54 ,,	9 20 ,,	26	58	52	52
196	White Hill Red Briar	11 25 ,,	11 50 ,,	25	60	52	55
197	White Hill Charming Delight	9 0 ,,	9 20 ,,	20	58	52	52
198	Ashmoor Briony	11 5 ,,	11 35 ,,	30	60	52	55
199	Weston Peggy	8 59 ,,	9 19 ,,	20	58	52	54
200	Sporle Elm Lady	9 42 ,,	10 0 ,,	18	59	52	53
201	Holton Rainbow 6th	9 3 ,,	9 17 ,,	14	58	52	53
202	Samford Witchgirl	9 46 ,,	10 8 ,,	22	59	52	54
208	Eastwell Marshmallow	8 58 ,,	9 11 ,,	13	58	52	53
209	Combwell Rosie	10 33 ,,	11 0 ,,	27	60	52	54
210	Seven Springs Quintal	8 58 ,,	9 28 ,,	30	58	52	53
216	Seven Springs Question	9 53 ,,	10 10 ,,	17	59	53	54
217	Yoxford Charlotte 4th	11 19 ,,	12 0 noon	41	60	53	54
218	Beeding Rose 2nd	9 14 ,,	9 37 a.m.	23	59	52	54
221	Kirton Sundial	9 0 ,,	9 34 ,,	34	58	52	53
222	Ashmoor Marvel	10 54 ,,	11 15 ,,	21	60	52	53
224	Fersfield Pear Bloom	9 53 ,,	10 35 ,,	42	59	52	56
225	Mistley Amethyst	9 41 ,,	10 20 ,,	39	59	52	55
231	White Hill Charming Rosemary	9 31 ,,	9 54 ,,	23	59	52	55
234	Kirton Oaken	11 0 ,,	11 25 ,,	25	60	52	56
235	Foxearth Bella 2nd	10 20 ,,	11 0 ,,	40	59	52	55
236	Mistley Lilac 2nd	10 23 ,,	10 43 ,,	20	59	52	54
237	Abbeycombe Rosina	10 15 ,,	10 44 ,,	29	59	52	54
238	Abbeycombe Heather	10 40 ,,	11 0 ,,	20	60	52	53

BUTTER TESTS—AYRSHIRES.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
254	J. N. Drummond	Bargower Miss Donald 3rd	1237	Feb. 13, 1928	Sept. 14	37	25.2	26.0	23.6	74.8	3	2¼	23.86	Ex.	Ex.	50.25	—	50.25	3rd Prize
255	J. N. Drummond	Bargower Miss Donald 5th	1341	Mar. 12, 1930	Sept. 26	25	20.0	21.1	20.3	61.4	2	15½	20.67	Ex.	Ex.	47.50	—	47.50	4th Prize
258	W. & J. Logan...	South Craig Miss Flora	1172	Dec. 11, 1927	Sept. 12	39	18.2	18.4	18.7	55.3	2	11¼	20.44	Pale	Good	43.25	—	43.25	H.C.
260	D. Smith ...	Thornhill Mermaid 2nd	1212	May 19, 1929	Oct. 2	19	25.5	25.2	26.2	76.9	3	5¾	22.92	Ex.	Ex.	53.75	—	53.75	1st Prize
262	University of Edinburgh	Barr Kamela ...	1257	May 1, 1927	Oct. 2	19	22.0	22.6	22.5	67.1	2	15½	22.59	Pale	Good	47.50	—	47.50	Reserve
263	W. Mackay ...	Compton Dahlia	1201	Apr. 21, 1929	Sept. 18	33	22.2	21.4	14.1	57.7	1	15	29.74	Good	Good	31.00	—	31.00	
265	A. Cochrane ...	Lesserlinn Rosebud 2nd	1232	May 14, 1930	Sept. 17	34	26.6	22.7	23.6	72.9	2	13¼	25.81	Fair	Fair	45.25	—	45.25	H.C.
268	Capt. W. B. Dronsfield ...	Wilmcote Anabelle	1327	Oct. 5, 1929	Sept. 14	37	22.1	23.0	23.2	68.3	2	7	27.99	Fair	Fair	39.00	—	39.00	H.C.
269	J. Turner ...	Loaninghead May	1182	Apr. 4, 1927	Oct. 4	17	23.0	22.9	23.1	69.0	2	5	29.87	Fair	Fair	37.00	—	37.00	H.C.
271	J. N. Drummond	Bargower Miss Donald 7th	1335	Oct. 10, 1931	Oct. 5	16	22.1	21.2	21.3	64.6	3	4	19.88	Ex.	Ex.	52.00	—	52.00	2nd Prize
272	R. Dunlop ...	Seckford Empress	1207	Jan. 3, 1931	Sept. 25	26	21.9	21.7	19.5	63.1	2	2¾	21.15	Fair	Good	34.75	—	34.75	H.C.
275	A. Cochrane ...	Stannock Whitie 5th	1256	Jan, 5, 1931	Sept. 24	27	23.6	24.1	22.1	69.8	2	11	25.95	Good	Good	43.00	—	43.00	H.C.
277	J. R. P. Hedley	Cowichan Fleckie	1004	Feb. 26, 1932	Oct. 6	15	22.7	21.5	22.6	66.8	2	3	30.64	Good	Fair	35.00	—	35.00	H.C.
278	J. R. P. Hedley	Woodland Teresa	1054	Jan. 9, 1931	Sept. 27	24	21.1	24.0	22.0	67.1	1	13¾	36.17	Pale	Fair	29.75	—	29.75	H.C.
279	J. Mackie ...	Relief Sprightly 2nd	1204	July 27, 1931	Sept. 26	25	24.9	22.3	21.0	68.2	2	4½	28.91	Pale	Fair	36.50	—	36.50	H.C.
280	W. A. Thomson	Dalpeddar Whisper	1018	Sept. 29, 1931	Sept. 1	50	27.8	26.4	25.0	79.2	2	3¼	36.08	Good	Good	35.25	1.0	36.25	H.C.
285	G. Barbour ...	Auchengibbert Ena	951	Apr. 3, 1933	Sept. 16	35	15.8	16.6	16.1	48.5	1	15	25.00	V. Pale	Good	31.00	—	31.00	H.C.

BUTTER TESTS—AYRSHIRES—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs ozs							
286	G. Barbour ...	Auchengibbert Etta 8th	972	Mar. 14, 1933	Sept. 14	37	16.4	16.7	16.4	49.5	1 13	27.35	Pale	Good	29.00	—	29.00	H.C.
290	University of Edinburgh	Linnhead May Queen 4th	1120	Feb. 1, 1933	Sept. 11	40	15.1	15.6	14.5	45.2	2 2¼	21.17	Pale	Good	34.25	—	34.25	H.C.
303	Capt. W. B. Dronsfield	Wilmcote Anabelle 2nd	1038	Oct. 2, 1933	Sept. 22	29	14.5	15.8	15.4	45.7	1 8	30.47	Pale	Good	24.00	—	24.00	H.C.
304	Capt. W. B. Dronsfield	Darlingscott Minx	1096	Aug. 28, 1932	Sept. 13	38	11.9	11.3	11.6	34.8	1 3½	28.76	Pale	Good	19.50	—	19.50	
305	J. Mackie ...	Relief Joan ...	1193	Mar. 4, 1933	Sept. 23	28	16.4	16.0	15.2	47.6	1 13½	25.87	Fair	Good	29.50	—	29.50	H.C.

BUTTER TESTS—AYRSHIRES—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
254	Bargower Miss Donald 3rd	11 6 a.m.	11 25 a.m.	19	60	52	53
255	Bargower Miss Donald 5th	10 46 ,,	10 22 ,,	36	60	52	55
258	South Craig Miss Flora	10 42 ,,	11 5 ,,	23	60	52	55
260	Thornhill Mermaid 2nd	2 31 p.m.	2 48 p.m.	17	61	52	54
262	Barr Kamela	11 45 a.m.	12 5 ,,	20	61	52	53
263	Compton Dahlia	11 50 ,,	12 22 ,,	32	61	52	56
265	Lesserlinn Rosebud 2nd	11 10 ,,	11 32 a.m.	22	60	52	53
268	Wilmcote Anabelle	12 25 p.m.	12 40 p.m.	15	63	56	53
269	Loaninghead May	12 21 ,,	12 37 ,,	16	63	52	53
271	Bargower Miss Donald 7th	12 1 ,,	12 15 ,,	14	62	52	55
272	Seckford Empress	12 5 ,,	12 33 ,,	28	60	52	56
275	Stannock Whitie 5th	12 19 ,,	12 33 ,,	14	63	52	53
277	Cowichan Fleckie	12 15 ,,	12 33 ,,	18	63	53	53
278	Woodland Teresa	12 29 ,,	1 20 ,,	51	63	52	56
279	Relief Sprightly 2nd	2 24 ,,	2 38 ,,	14	61	52	53
280	Dalpeddar Whisper	12 1 ,,	12 35 ,,	34	61	52	53
285	Auchengibbert Ena	12 10 ,,	12 33 ,,	23	60	52	56
286	Auchengibbert Etta 8th	2 0 ,,	2 30 ,,	30	61	52	53
290	Loaninghead May Queen 4th	12 24 ,,	1 10 ,,	46	63	52	54
303	Wilmcote Anabelle 2nd	12 5 ,,	12 31 ,,	26	63	52	56
304	Darlingscott Minx	12 15 ,,	12 45 ,,	30	63	52	55
305	Relief Joan	1 45 ,,	2 3 ,,	18	61	52	56

BUTTER TESTS—GUERNSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1935		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs ozs		Colour	Quality				
310	C. Holmes ...	Dairymaid of Riduna	1285	Jan. 17, 1930	Sept. 30	21	21.1	20.5	17.9	59.5	3 13¼	15.56	Ex.	Ex.	61.25	—	61.25	1st Prize
311	H. A. Y. Dyson	Lenores Polly of Cote Grange	1170	May 6, 1930	June 30	113	15.0	14.8	14.8	44.6	1 15½	22.64	Ex.	Ex.	31.50	7.30	38.80	H.C.
312	Mrs. E. Rich ...	Silverstead Nina	1130	Aug. 10, 1929	Sept. 23	28	15.8	15.2	16.4	47.4	2 11½	17.43	V.Good	Ex.	43.50	—	43.50	Reserve
315	Capt. H. J. Pilbrow	Valence Lavender 2nd	1043	Aug. 24, 1927	Feb. 28	235	17.4	13.5	8.0	38.9	1 13¼	21.32	Ex.	Ex.	29.25	12.0	41.25	H.C.
316	Capt. H. J. Pilbrow	Mapleton Mermaid	1169	Sept. 24, 1929	Apr. 30	174	18.4	17.8	17.9	54.1	1 11	32.01	V.Good	V.Good	27.00	12.0	39.00	H.C.
317	Capt. H. J. Pilbrow	Bon Espoir Lily 4th	1112	Feb. 14, 1928	July 19	94	17.3	17.1	16.8	51.2	2 3¼	23.32	Ex.	Ex.	35.25	5.40	40.65	H.C.
318	E. D. Fair-weather	Rex's Primrose of Maison du Bas	1184	Sept. 22, 1927	June 7	136	16.5	16.0	16.7	49.2	2 5¼	21.16	Good	Ex.	37.25	9.60	46.85	4th Prize
319	E. D. Fair-weather	May Boy Daisy of the Blanche	1069	June 6, 1924	June 25	118	16.1	20.2	18.9	55.2	2 1¾	26.22	V.Good	V.Good	33.75	7.8	41.55	H.C.
320	C. Holmes ...	Rosey of Good-nestone 62nd	1040	Feb. 1, 1932	June 23	120	11.9	9.8	10.7	32.4	1 10½	19.64	Ex.	V.Good	26.50	8.00	34.50	H.C.
322	H. A. Y. Dyson	Primrose Polti-more of Payhay	1076	June 13, 1932	Sept. 12	39	18.7	19.8	21.1	59.6	2 6¼	24.99	Ex.	V.Good	38.25	—	38.25	H.C.
323	E. H. Lane ...	Molly 2nd of Crabwood	826	July 3, 1931	Oct. 4	17	15.8	17.5	17.5	50.8	2 0½	25.02	Ex.	V.Good	32.50	—	32.50	H.C.
325	Mrs. Yorke ...	Peter's Jenette	1056	Dec. 28, 1931	June 10	133	19.5	14.7	14.4	48.6	2 12½	17.48	Ex.	Ex.	44.50	9.30	53.80	2nd Prize
326	Lord Swaythling	Bladon Meadow Sweet 6th	1172	Dec. 25, 1930	Sept. 2	49	18.1	19.3	19.3	56.7	2 1¼	27.33	Ex.	Ex.	33.25	0.90	34.15	H.C.
327	Capt. H. J. Pilbrow	Galaxy's Lassie Darling of Mapleton	967	June 5, 1931	July 31	82	13.6	13.2	13.9	40.7	1 11½	23.66	Ex.	V.Good	27.50	4.20	31.70	H.C.
329	Hon. A. E. Guinness	Bella's Cora 4th of Les Jetteries	1089	Mar. 25, 1932	Aug. 15	67	17.8	14.1	16.0	47.9	2 2	25.60	Good	V.Good	34.00	2.70	36.70	H.C.
330	Hon. A. E. Guinness	Hewton Lodge Dorine 4th	1082	Feb. 21, 1932	July 26	87	12.6	12.4	12.9	37.9	1 3½	31.32	Good	V.Good	19.50	4.70	24.20	

BUTTER TESTS—GUERNSEYS—*Continued.*

No. in Catalogue.	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No of Points for Butter	No of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
331	H. H. Scott ...	Hartwell Belle of Ellerslie	972	Sept. 22, 1930	Aug. 15	67	10.4	15.3	11.1	36.8	1	9¼	23.37	V.Good	Good	25.25	2.7	27.95	H.C.
336	Mrs. Yorke ...	Peter's Marcia	866	Mar. 10, 1933	Sept. 20	31	12.8	12.6	11.7	37.1	1	10¼	22.69	Ex.	Ex.	26.25	—	26.25	H.C.
337	Lord Swaythling	Bladen Gay Lass 2nd	1026	May 15, 1932	Nov. 19	336	16.9	13.0	15.3	45.2	1	14	24.17	Ex.	Ex.	30.00	12.00	42.00	H.C.
342	Hon. A. E. Guinness	Reading Ina ...	973	Mar. 6, 1933	1934 May 16	158	17.3	14.8	15.0	47.1	2	3½	21.31	V.Good	V.Good	35.50	11.8	47.30	3rd Prize
343	H. H. Scott ...	Hartwell Queen of North Valley	868	June 26, 1933	Sept. 4	47	10.8	12.8	13.5	37.1	1	11¾	21.38	V.Good	V.Good	27.75	0.70	28.45	H.C.

BUTTER TESTS—GUERNSEYS—*Continued.*

No. in Cata-logue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
310	Dairymaid of Riduna	2 25 p.m.	2 45 p.m.	20	61	52	55
311	Lenores Polly of Cote Grange	2 12 ,,	2 33 ,,	21	61	52	55
312	Silverstead Nina	2 15 ,,	3 2 ,,	47	61	52	56
315	Valence Lavender 2nd	2 15 ,,	3 0 ,,	45	61	52	55
316	Mapleton Mermaid	2 43 ,,	3 10 ,,	27	61	52	56
317	Bon Espoir Lily 4th	2 20 ,,	2 50 ,,	30	61	52	54
318	Rex's Primrose of Maison du Bas	2 45 ,,	3 14 ,,	29	61	52	54
319	May Boy Daisy of the Blanche	2 35 ,,	3 7 ,,	32	61	52	56
320	Rosey of Goodnestone 62nd	3 25 ,,	3 52 ,,	27	62	52	55
322	Primrose Poltimore of Payhay	2 42 ,,	3 22 ,,	20	61	52	54
323	Molly 2nd of Crabwood	2 47 ,,	3 20 ,,	33	62	52	55
325	Peter's Jenette	2 50 ,,	3 25 ,,	35	62	52	56
326	Bladen Meadow Sweet 6th	3 2 ,,	3 22 ,,	20	62	52	54
327	Galaxy's Lassie Darling of Mapleton	2 36 ,,	3 0 ,,	24	61	52	56
329	Bella's Cora 4th of Les Jetteries	3 15 ,,	3 34 ,,	19	62	52	55
330	Hewton Lodge Dorine 4th	3 15 ,,	4 0 ,,	45	62	52	55
331	Hartwell Belle of Ellerslie	2 40 ,,	3 21 ,,	41	61	52	55
336	Peter's Marcia	2 55 ,,	3 20 ,,	25	62	52	55
337	Bladen Gay Lass 2nd	3 0 ,,	3 25 ,,	25	62	52	56
342	Reading Ina	3 6 ,,	3 46 ,,	40	62	52	55
343	Hartwell Queen of North Valley	3 20 ,,	3 45 ,,	25	62	52	56

BUTTER TESTS—JERSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1935		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs		Colour	Quality				
344	Col. Lord Digby	Minterne Mary	1120	Nov. 30, 1928	Feb. 22	241	12.0	16.8	13.3	42.1	2	4¾	18.34	V.Good	V.Good	36.75	12.0	48.75	4th Prize
345	G. Berry	Black Art's Postgirl	1110	Mar. 20, 1928	Mar. 13	222	16.7	15.6	16.2	48.5	2	2¾	22.40	V.Good	V.Good	34.75	12.0	46.75	H.C.
346	G. Berry	Starting Ruby	1076	July 17, 1929	Sept. 24	27	19.6	18.0	17.2	54.8	2	13	19.50	Ex.	Ex.	45.00	—	45.00	H.C.
347	Hon. Mrs. Esme Smyth	Rainbow	878	June 26, 1929	May 27	147	13.5	15.4	11.5	40.4	2	0¼	20.05	Ex.	Ex.	32.25	10.7	42.95	H.C.
349	Mrs. R. M. Foot	White Hill Happy May	880	Mar. 21, 1930	Sept. 11	40	22.7	22.0	22.9	67.6	2	14¾	23.19	Pale	V.Good	46.75	—	46.75	H.C.
350	M. F. North	Gracious Lady	950	June 5, 1928	Apr. 28	176	15.5	12.9	10.8	39.2	2	3	17.98	V.Good	V.Good	35.00	12.00	47.00	Reserve
351	M. F. North	Wotton Bella Donna	975	June 25, 1930	Aug. 23	59	20.0	19.4	19.7	59.1	2	7	24.22	V.Good	V.Good	39.00	1.9	40.90	H.C.
355	G. McWilliam	Bollhayes Dusty's Flapper	914	May 13, 1930	June 20	123	14.4	18.9	15.1	48.4	1	14	25.88	Ex.	Ex.	30.00	8.30	38.30	H.C.
356	J. W. McCallum	Sonata	970	Nov. 11, 1925	Aug. 16	66	20.5	18.2	18.6	57.3	3	3	18.02	Ex.	Ex.	51.00	2.60	53.60	1st Prize
357	J. W. McCallum	Foxwarren Harriet	992	June 6, 1927	June 12	131	15.0	13.8	12.6	41.4	2	8½	16.36	V.Good	V.Good	40.50	9.10	49.60	3rd Prize
358	Mrs. G. J. Caddey	Snow Cloud	935	Feb. 27, 1930	June 27	116	12.6	13.1	12.2	37.9	2	4¼	16.73	V.Good	V.Good	36.25	7.6	43.85	H.C.
359	Mrs. G. J. Caddey	Precious Bane	972	June 6, 1930	June 13	130	13.0	13.3	12.9	39.2	2	2¾	18.11	Good	Good	34.75	9.00	43.75	H.C.
360	Ovaltine Dairy Farm	Playmate of Oaklands	888	May 17, 1929	June 30	113	16.8	18.1	17.8	52.7	2	6	22.24	Good	V.Good	38.00	7.30	45.30	H.C.
361	Ovaltine Dairy Farm	Eucalia's Jest	911	June 20, 1929	Aug. 6	76	17.9	18.0	16.6	52.5	2	7¼	21.38	Good	V.Good	39.25	3.60	42.85	H.C.
363	Miss G. M. Yule	Wotton Belinda	980	May 18, 1932	Apr. 6	198	13.3	14.3	9.4	37.0	1	7½	25.17	Ex.	Ex.	23.50	12.0	35.50	H.C.
364	Mrs. G. J. Caddey	Cambraie Elfa 2nd	886	Nov. 10, 1930	July 22	91	12.8	12.7	12.9	38.4	2	4¼	16.95	V.Good	Ex.	36.25	5.10	41.35	H.C.
366	Mrs. H. Hawkins	Everdon Bowlina's Flora	965	June 19, 1931	Oct. 1	20	15.0	18.3	17.1	50.4	2	10½	19.02	V.Good	V.Good	42.50	—	42.50	H.C.

BUTTER TESTS—JERSEYS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield	Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No of points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total			Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs ozs							
367	W. E. Press ...	Deborah ...	942	June 6, 1931	May 13	161	12.9	12.8	13.0	38.7	1 14	20.70	V.Good	V.Good	30.00	12.0	42.00	H.C.
370	H. E. Mitchell	Wotton Bellona	888	Apr. 8, 1932	Sept. 11	40	11.3	11.7	11.3	34.3	1 15¾	17.28	V.Good	V.Good	31.75	—	31.75	H.C.
371	Ovaltine Dairy Farm	Queen's Dream Lady	935	Feb. 25, 1931	May 3	171	15.5	15.3	14.6	45.4	2 6¾	18.80	Good	Good	38.75	12.00	50.75	2nd Prize
375	G. McWilliam ...	Poppy	772	Dec. 5, 1932	Mar. 30	205	11.4	11.3	11.8	34.5	1 10½	20.91	V.Good	V.Good	26.50	12.00	38.50	H.C.
377	Mrs. H. Hawkins	Empire Mary ...	637	May 24, 1933	Aug. 25	57	15.4	14.6	15.2	45.2	2 4	20.09	Good	Good	36.00	1.7	37.70	H.C.

BUTTER TESTS—JERSEYS—*Continued.*

No. in Cata-logue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
344	Minterne Mary	3 16 p.m.	3 40 p.m.	24	62	52	55
345	Black Art's Postgirl	3 30 ,,	4 0 ,,	30	62	52	53
346	Starting Ruby	3 30 ,,	4 0 ,,	30	62	52	54
347	Rainbow	3 38 ,,	4 28 ,,	50	62	52	55
349	White Hill Happy May	5 40 ,,	6 5 ,,	25	60	52	54
350	Gracious Lady	5 30 ,,	6 12 ,,	42	60	52	56
351	Wotton Bella Donna	3 13 ,,	3 40 ,,	27	62	52	54
355	Bollhayes Dusty's Flapper	3 50 ,,	4 19 ,,	29	62	52	57
356	Sonata	3 30 ,,	4 28 ,,	58	62	52	56
357	Foxwarren Harriet	3 55 ,,	4 50 ,,	55	62	52	56
358	Snow Cloud	5 32 ,,	6 12 ,,	40	60	52	54
359	Precious Bane	5 35 ,,	6 12 ,,	37	60	52	56
360	Playmate of Oaklands	3 45 ,,	4 5 ,,	20	62	52	54
361	Eucalia's Jest	5 15 ,,	5 35 ,,	20	60	52	55
363	Wotton Belinda	5 0 ,,	5 26 ,,	26	60	52	52
364	Cambraie Elfa 2nd	5 0 ,,	5 45 ,,	45	60	52	54
366	Everdon Bowlina's Flora	5 40 ,,	6 8 ,,	28	60	52	56
367	Deborah	5 37 ,,	6 20 ,,	43	60	52	52
370	Wotton Bellona	5 12 ,,	6 0 ,,	48	60	52	56
371	Queen's Dream Lady	5 18 ,,	5 48 ,,	30	60	52	55
375	Poppy	4 0 ,,	4 45 ,,	45	62	52	55
377	Empire Mary	4 0 ,,	4 42 ,,	42	62	52	54

BUTTER TESTS—OTHER BREEDS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total				Colour	Quality				
			lbs.		1935		lbs.	lbs.	lbs.	lbs.	lbs	ozs							
	SOUTH DEVONS.																		
167	Miss J. Smith ...	Crocus	1682	Apr. 6, 1929	Oct. 6	15	12.5	12.7	11.9	37.1	1	10	22.90	Ex.	V.Good	26.00	—	26.00	
168	J. Rossiter ...	Graceful ...	1554	May 22, 1928	Sept. 2	49	18.0	19.8	19.2	57.0	2	4½	25.00	Ex.	V.Good	36.50	0.90	37.40	H.C.
169	Dartington Hall, Ltd.	Dartington Lassie	1627	Mar. 7, 1928	Apr. 14	190	23.1	18.1	18.8	60.0	1	10	37.04	Ex.	Good	26.00	12.00	38.00	H.C.
171	Dartington Hall, Ltd..	Cinderella ...	1708	June 22, 1929	Oct. 4	17	22.1	18.3	17.7	58.1	2	14¼	20.14	Ex.	V.Good	46.25	—	46.25	Reserve
172	G. Wills ...	Milkmaid 3rd ...	1872	Oct. 3, 1929	Sept. 18	33	19.9	22.3	19.3	61.5	2	13½	21.65	Ex.	Ex.	45.50	—	45.50	H.C.
173	G. Wills ...	Milkmaid 5th ...	1758	Oct. 7, 1930	Oct. 5	16	22.9	19.8	19.5	62.2	3	4	19.14	V.Good	V.Good	52.00	—	52.00	Prize of £3.
176	J. T. Dennis ...	Winsor Alma ...	1270	Mar. 10, 1931	Sept. 19	32	19.3	21.1	20.5	60.9	2	14¼	21.11	Ex.	V.Good	46.25	—	46.25	Prize of £2.
178	Dartington Hall, Ltd.	Dartington Hall Nervous Alice 2nd	1508	Feb. 2, 1932	Aug. 13	69	25.0	17.2	13.5	55.7	2	2	26.27	Ex.	V.Good	34.00	2.90	36.90	H.C.
180	Dartington Hall, Ltd.	Dartington Belle 1st	1396	Sept. 10, 1932	Sept. 17	34	9.6	13.1	10.8	33.5	0	11	48.55	V.Good	Good	11.00	—	11.00	
184	G. Wills ...	Rydon Milkmaid 7th	1464	Sept. 20, 1932	Oct. 7	14	13.8	13.5	13.7	41.0	2	3½	18.55	V.Good	V.Good	35.50	—	35.50	H.C.
	DEVONS.																		
186	H. G. Mayo ...	Corton Comet ...	1542	July 20, 1926	Sept. 13	38	19.4	19.9	19.5	58.8	2	3¾	26.43	Fair	Good	35.75	—	35.75	Prize of £3.
187	H. G. Mayo ...	Corton Orange	1586	Jan. 27, 1928	Aug. 16	66	13.0	15.3	14.9	43.2	1	14½	22.74	Fair	Good	30.50	2.60	33.10	Reserve
188	A. J. P. Baker	Woodrow Fancy	1510	Dec. 14, 1929	Sept. 10	41	14.5	15.5	15.0	45.0	1	11¾	35.94	F.Good	Good	27.75	0.10	27.85	
189	G. E. Braddick	Ruby 4th ...	1286	Jan. 17, 1927	Sept. 25	26	22.7	23.7	23.2	69.6	1	15½	35.33	Good	Good	31.50	—	31.50	H.C.

BUTTER TESTS—OTHER BREEDS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	Colour and Quality of Butter		No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1935		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs		Colour	Quality				
	WELSH BLACK.																		
246	University College of N. Wales	Snowdon Fuchsia	1128	July 27, 1931	Sept. 14	37	13.5	13.6	14.3	41.4	1	14¼	21.96	Fair	Good	30.25	—	30.25	H.C.
247	University College of N. Wales	Snowden Bronwen 3rd	1184	Apr. 17, 1929	Aug. 29	53	12.2	12.4	12.0	36.6	1	9	23.46	Fair	Good	25.00	1.3	26.30	
249	Hon. Lady Shelley Rolls	Grace	1380	Aug. 5, 1930	Sept. 18	33	24.4	24.3	24.9	73.6	3	0¾	24.17	Good	Good	48.75	—	48.75	Prize of £3.
251	N. Vosper ...	Llanichan Tetsi	1194	Aug. 31, 1928	Sept. 14	37	15.6	19.1	17.6	52.3	2	0	26.15	Fair	Good	32.00	—	32.00	Reserve
252	N. Vosper ...	Llanichan Mwynder	1301	Oct. 3, 1926	Sept. 7	44	11.7	11.6	11.5	34.8	1	6½	24.86	Good	Good	22.50	0.40	22.90	
253	Mrs. E. H. Spottiswoode	Gwern Endeavour	1418	June 8, 1929	Oct. 7	14	14.0	16.7	16.9	47.6	2	3½	21.54	V.Good	Good	35.50	—	35.50	Prize of £2.
	DEXTER.																		
389	Lady Loder ...	Grinstead Nightingale 3rd	770	Dec. 19, 1925	May 13	161	14.1	13.8	12.5	40.4	1	9½	25.41	Good	Good	25.50	12.00	37.50	Prize of £3.

BUTTER TESTS—OTHER BREEDS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
	SOUTH DEVONS.						
167	Crocus	3 50 p.m.	4 30 p.m.	40	62	52	55
168	Graceful	5 27 ,,	6 8 ,,	41	60	52	55
169	Dartington Lassie	5 25 ,,	5 50 ,,	25	60	52	56
171	Cinderella	5 40 ,,	5 55 ,,	15	60	52	53
172	Milkmaid 3rd	4 55 ,,	5 25 ,,	30	60	52	54
173	Milkmaid 5th	5 15 ,,	5 40 ,,	25	60	52	55
176	Winsor Alma	3 35 ,,	4 0 ,,	25	62	52	55
178	Dartington Hall Nervous Alice 2nd	11 30 a.m.	11 57 a.m.	27	60	52	56
180	Dartington Belle 1st	8 33 ,,	9 11 ,,	18	58	52	54
184	Rydon Milkmaid 7th	10 12 ,,	10 23 ,,	11	59	52	54
	DEVONS.						
186	Corton Comet	8 57 a.m.	9 31 a.m.	34	58	52	53
187	Corton Orange	10 55 ,,	11 21 ,,	26	60	52	54
188	Woodrow Fancy	9 4 ,,	9 43 ,,	39	58	52	55
189	Ruby 4th	11 30 ,,	12 0 noon	30	60	52	56
	WELSH BLACK.						
246	Snowdon Fuchsia	10 33 a.m.	11 8 a.m.	35	60	52	55
247	Snowdon Bronwen 3rd	10 27 ,,	11 0 ,,	33	59	52	56
249	Grace	5 47 p.m.	5 55 p.m.	8	60	52	54
251	Llanichan Tetsi...	10 50 a.m.	11 30 a.m.	40	60	52	53
252	Llanichan Mwynder	10 38 ,,	11 25 ,,	47	60	52	55
253	Gwern Endeavour	11 45 ,,	12 4 p.m.	19	61	52	54
	DEXTER.						
389	Grinstead Nightingale 3rd	3 50 p.m.	5 15 p.m.	85	62	52	54

POULTRY SECTION—DAIRY SHOW, 1935

By W. J. Golding.

"Nothing succeeds like success." The annual show each year goes one better than the previous one; record crowds, and plenty of business being done. This popular event attracts persons in every branch of the poultry industry, who support it to the full with exhibits and appliance stands. The weather again was on its best behaviour; the sun shone brilliantly on the opening day which proved of great assistance to the judges in their painstaking work; the task of judging was got through in record time and the cards promptly placed on the pens, which says much for the excellent arrangements carried out by the chief Steward, Mr. J. H. Brown, and his band of able assistants.

The entry was slightly up on the 1934 exhibition, and taken collectively was well up to the high standard of quality expected at this great show, and made a remarkable display.

Dead Poultry and Eggs.

This section showed a large increase in entries, and undoubtedly was one of the best displays of Table poultry ever seen at the Dairy Show. Two hundred and eighty exhibits in the nineteen classes scheduled made a wonderful impression and was a show in itself. Mr. Crane most ably carried out his work and his awards were generally well received. He consistently kept to quality and texture of flesh, in preference to mere weight, but with the extra large entry in the two pack classes, he had an unusually heavy task, and before another show comes round, it must be considered whether an additional judge should not be appointed. The packs alone, judged on the score card system, warrant an extra judge being called in.

In the classes for pure-breds, the Sussex retained its hold; the two remaining classes for any breed other than Sussex consisted of Buff Orpingtons with but one exception. The entry in the cross-bred classes compared very favourably both in quality and numbers, with that obtaining at previous shows, and it was in these classes that the Gold Medal winning pair was found, Mr. A. J. Falkenstein again securing this much coveted prize with an excellent pair of Game Sussex pullets, which for weight (they scaled 16¼ lbs.), for evenness and texture of flesh were hard to fault, and well deserved the medal. The special classes for farmers and cottagers were well filled and contained exhibits of outstanding merit. The Market Packs contained exhibits extraordinarily level in quality, and required a deal of work to get them sorted; it was most pleasing to me, as a breeder of Buff Orpingtons, to see how well this breed was represented in these two classes.

The Egg classes, judged by Mr. Longfellow, had again an increased entry, and in the opinion of the judge were excellent, both in shell texture and appearance. In the colonial section he considered the standard not quite up to that obtaining at previous shows, although the packing was good.

LIVE POULTRY.

Dorkings had pride of place in the schedule as usual, and although a slightly better entry than last year, much needs to be done to bring this grand old breed back to its former popularity. The Silver Medal went to the winning Dark cockerel exhibited by Mr. W. G. Watson; this exhibit subsequently standing as reserve for the Championship.

Brahmas were weak in numbers and the quality generally was not good, the winning Dark pullet belonging to Mr. T. Leyson was young but promising, and secured the Bronze Medal.

Cochins, a good old breed—did not make a big show, the Blacks predominating in the Colours and the pullet exhibited by Mr. H. Whitley gained the Medal.

Wyandottes. This breed as a whole cannot be described other than disappointing—just a moderate entry—with nothing much oustanding; the laced classes showing perhaps the best quality; the White cockerel, however, exhibited by Mr. G. Blundell was awarded the Medal for the best Wyandotte.

Sussex, with the reduced classification, similar to that of last year, made quite a good representative collection, the Light classes easily leading in numbers and were an exceedingly level lot of birds in quality. Sir Duncan Watson's Light Cockerel was awarded the Medal for the best Sussex, closely followed in the opinion of the judge by Mr. W. Hodge's Speckled pullet which was placed reserve for the Special. Messrs. Greenhow & Hartley won the Cup for the best White, with their winning Cockerel which was only catalogued at £7 7s. 0d. and quickly claimed. The "Hardy" Cup for the best Brown was awarded to Mr. A. White for his cockerel exhibited in the Any Other Colour class.

Orpingtons with 75 entries in the 8 classes provided cannot be described as good regarding numbers, but the quality was quite up to the average. Breeders, especially of the Buff variety, are alive to the fact that present-day requirements are for birds of an active stamp, free from excessive feathering and any degree of coarseness ; specimens of the Black variety are still inclined to be too low on the leg and show too much feather. Miss N. Shanks with her winning Black cockerel secured the Medal for the best Orpington. The Challenge Cup for the best Buff was awarded to the winning Cockerel exhibited by Mr. W. J. Golding and the Harold Brown Challenge Cup went to the Blue Cockerel shown by Mr. Harold Corrie.

Croad Langshans—this breed made a good show both in numbers and quality. the pullets making an excellent class of 22 exhibits which must be described as the best seen for several years past. The winner, exhibited by Miss M. Schroeter, was awarded the Medal and well deserved her win, being of excellent type, good colour and faultlessly shown.

Plymouth Rocks with that veteran judge Mr. E. Marshall adjudicating, came up well, with the *Buffs* leading for number in entries. The *Barred* variety was not far behind and it was here that the judge found the Medal winner in Mrs. W. W. Bull's noted pullet. It was pleasing to note the improvement this breed has made in the past few seasons in its utility properties, the greater number of the pullets showing those qualities that denote egg production.

Faverolles. The *Salmon* variety made quite a good show, although a few of the cockerels were not yet ready, but the pullets were good ; the *Any other colour* were not well filled classes but contained some extra good quality birds. The Medal deservedly went to the winning Salmon pullet shown by Mrs. M. J. Carter.

Barnevelders.—The entry, with the exception of the *Double laced* classes was poor, and quality on the whole was not of a very high order. It seems that an amended classification is needed, and that the *Partridge* and *Black* classes be amalgamated another year.

Anconas were two representative classes and although numbers were not so good as we have previously seen here, the quality was well up to the average. The winning cockerel exhibited by Mr. G. J. Davies secured the Medal.

Campines averaged twelve per class, which must be considered good for this breed, the quality of the *Golds* was better than the *Silvers*.

Bresse. At one time this breed looked like catching on, being not only useful but attractive, but to-day the breed seems more or less on the decline, and rarely seen, other than at the classic shows.

Silkies.—This is another attractive breed purely for exhibition purposes, the entry was not a good one, with the White male class cancelled.

Polish.—The single class provided attracted but eight exhibits, and the *Frizzles* contained a similar number. Both breeds are in too few breeders' hands.

Old English Pheasant Fowl.—Quite a good class in numbers and full of quality. It is a pity this breed is not more popular, being good layers, with excellent table properties.

Minorcas.—This grand old breed was disappointing in entries, but the quality was of a high standard ; Mr. W. Fisher won in both classes, and his winning pullet which was awarded the Medal was an outstanding exhibit.

Andalusians must be considered just moderate both in number of entries and the quality of the birds shown.

Leghorns.—Entries throughout this breed were down a little on last year, but nevertheless quality was in evidence, especially in the *Brown* and *White* classes. The *Buffs* too, were a better lot than last year, but the *Black* classes were most disappointing. The two *Any Other Colour* classes contained some really good birds, especially the winning Duckwing cockerel. The white pullet exhibited by Mr. C. Bell well deserved the Medal.

British Jersey Giants.—This breed does not seem to be making the headway once predicted for it. The two classes contained but nineteen entries and quality was lacking.

Rhode Island Reds.—Seventy-nine entries in the two single comb classes is good, but nothing like the number seen at the Dairy Show a few years back. Moreover, taken generally, the quality was not of such a high standard as we are accustomed to see. Breeders must aim for that good substance of feather, as several of the exhibits were inclined to be dull in colour. That objectionable frizzle in the feather could be spotted here and there. The Medal was awarded the Cockerel exhibited by Mr. G. H. Muzzlewhite—a bird with rare range of body, good colour, and a beautiful headpiece.

Indian Game as usual came up well in numbers, although again not such strong classes as we have seen in recent years. The quality was not quite up to Dairy Show standard. Among the cockerels so many birds were out at the hocks, a very bad fault, and some had twisted toes, equally as bad a fault. The pullets, however, were better in quality and the winner, exhibited by Mr. Cecil Brent was awarded the Medal for the best Indian Game.

Old English Game.—The entries were slightly down on those of the previous show, but made up for this on quality. Capt. J. S. Thompson handled them well, and condition—so essential in this breed—played an important part. The Silver Medal was won by a lovely Birchen pullet exhibited by Mr. C. Tice.

Any Other Variety.—These classes are always interesting and attractive, and included some extra good birds of the old breeds that one seldom sees to-day. They must have given the judge a difficult task to separate. The Medal went to a Hamburgh pullet shown by Mr. H. Fortune.

BREEDING PENS.

The mated trios always create a deal of interest, moreover three birds exhibited in a pen adds charm for the public to see. The three classes provided drew a good entry and won respectively by Buff Orpingtons, a well matched trio of Dark Dorkings, and a very smart pen of Minorcas. When the Judges came together to award the Medal, the pen of Buff Orpingtons exhibited by Mr. W. J. Golding took first honours ; the pen of Dorkings exhibited by Mr. A. J. Major being placed reserve.

SELLING CLASSES.

A big entry, which as usual contained many bargains, which the auction sale held on the Wednesday clearly proved, spirited bidding for many of the lots brought enhanced prices to exhibitors, and trade generally was considered better than last year—certainly more lots changed hands. The highest price realised, which caused a mild sensation, was the claiming by Sir Duncan Watson at £50, of an unnoticed Light Sussex cockerel, exhibited by Messrs. H. Underwood & Son ; several sales at £10 were recorded, including the championship winning Emden gander.

WATERFOWL.

Ducks, with the exception of the two Rouen classes, which had to be cancelled, comprised a very good selection, the Aylesburys being the best classes both in numbers and quality. The winning Drake, exhibited by Mr. H. G. Weston, was an outstanding exhibit and easily secured the Medal.

Geese were nothing like so good as we usually see at this show, the *Toulouse* were only a moderate lot, but in the *Emden* class the Championship of the show was awarded the winning gander, exhibited by Captain N. M. Harrop ; quite a record has thus been established by an Emden winning the Isherwood Perpetual Challenge Trophy two years in succession.

Turkeys were well filled classes and quality up to the usual high standard. Mr. Tennyson Fawkes, in spite of being far from well at the time handled the classes well, and his decisions left no room for grumbling. Several new names were to be noted amongst the winners, which speaks well for the breed. The Silver Medal this year fell to a White Stag, the property of Captain Dickinson—a fine upstanding young bird, perfect colour, and shown extra fit.

UTILITY POULTRY.

This section deserves most favourable comment, an entry well over 400 birds made quite a show in themselves and the quality throughout was of the highest possible order. *Rhode Island Reds* topped the section with 86 entries and a grand lot they were, many thought them quite equal in quality to those in the exhibition section. *White Wyandottes* were extra good classes, and the same may be said of *Australorps*. *Sussex* as usual came up strong and the 29 pullets were a very level lot and must have taken a deal of sorting. *White Leghorns* with 55 entries in the two classes made a brave show. *Welsummers* also were a most creditable display with a total of 56 entries in both classes. In the *Any Other Colour* classes the heavy breeds drew the better entry and were headed by a Croad Langshan cockerel and Buff Orpington pullet respectively. The Fifty-guinea Morrison Challenge Trophy went to Sir Duncan Watson's White Wyandotte cockerel, a bird hard to fault : the same owner's winning Light Sussex cockerel standing reserve.

BANTAMS.

Modern Game were a slight increase in entries on the previous show. *Black Reds* were particularly good in quality. *Piles* were rather disappointing, cocks and cockerels were good, but in hens, apart from the winners, the quality might have been better. *Duckwings* were a capital lot, and in the *Any Other Colour* classes the winning Brown Red Cock and the Birchen pullet stood out in their respective classes. The Silver Medal was awarded the Black Red Cockerel exhibited by Mr. J. Beesley. *Old English Game*, one of the most popular Bantams in existence, and the wonderful entry always seen at the Dairy Show was well maintained, and in the opinion of the judge the quality throughout had never been exceeded. The Medal winning cock, exhibited by Mr. A. Nicholson was a splendid miniature of the breed. The *Variety* classes taken collectively were a show in themselves, Rosecombs came up well, both in numbers and quality. *Sebrights* again were strong. *Frizzles* were particularly good, and the 8 classes provided for *Wyandottes* made a brave show. *Rhode Island Reds* seem almost as popular as their bigger brethren. *Indian Game*, as usually seen here, were both well filled classes.

THE SUPREME CHAMPIONSHIP.

The awarding of *The Isherwood Perpetual Challenge Trophy* was undertaken on the Wednesday morning by Messrs. R. Alty, W. W. Broomhead and John Wharton, and resulted in the Emden gander shown by Capt. N. M. Harrop to be the winner, with Mr. W. G. Watson's winning Dark Dorking Cockerel the runner up.

FINIS.

In concluding this report it can be stated, without the slightest fear of contradiction, that the poultry section of the 1935 show must be recorded as one of the best that has yet been held. It is a pity, in my opinion, that more exhibitors do not avail themselves of the many advantages gained by joining the British Dairy Farmers' Association.

PIGEON SECTION—DAIRY SHOW, 1935

By W. S. Brocklehurst, J.P.

The Fifty-seventh Annual Show of the British Dairy Farmers' Association was held on October 22nd, 23rd, 24th and 25th, 1935, at the Agricultural Hall, Islington, London. Favoured with good weather, the light was again excellent for judging on the morning of Tuesday, the first day of the Show, and most of the work was completed by the time the public were admitted to the galleries to see the result of the Judges' hard morning's work.

The attendance was well above the average of previous shows, which proves that the popularity of the Dairy Show is increasing considerably amongst fanciers and public alike. The entries in both the Poultry and Pigeon Sections exceeded those of last year and the quality of the exhibits showed improvement. Competition is continually getting keener, resulting in a great display in the galleries, to which the public throng each day of the Show.

I regret to record that the Poultry and Pigeon Committee has sustained a great loss by the death of a valued and esteemed member, *viz.*, Dr. C. H. Tattersall of New Milton, Hants. There is no need to enlarge here on his qualities as a great fancier and sportsman—it is so well known to all who have had the honour of knowing and working with him.

In the Pigeon Section this year there were 2,559 entries as compared with 2,471 in 1934, 2,611 in 1933 and 2,396 in 1932. Most of the judges report that in their sections the quality was well maintained throughout in the classes before them. This view was also expressed by many fanciers who attended the Show.

The winners of the British Dairy Farmers' Association Trophies and Gold Medal were a wonderful lot of pigeons and were a great credit to their respective breeders and owners, who are to be congratulated. Mr. James Laidler of 8, Old Sneddon Street, Paisley, kindly acted as the judge of these Trophies, and had a hard task to select the winners from the wonderful lot of nominated birds of each breed selected for his final choice, which were to be the winners of the following much coveted Association Trophies.

The Association Gold Medal for the best Pigeon in Show, bred in 1935, was awarded to Pen 532, Class 56, Messrs. W. S. & R. W. Brocklehurst's Blue Schietti Cock, a beautiful young pigeon of correct type, quality and colour, standing well away. Reserve was Mr. T. Wilkinson's young Blue Dragoon Hen, which also won the Sectional Fulton Trophy, Pen 54, Class 6—a pigeon of exceptional quality.

The Jones Memorial Trophy for best Adult Pigeon in the Show was awarded to Pen 2508, Class 238, Mr. F. H. Jarvis's Fantail Cock, a very fine pigeon and well shown. Reserve was Pen 329, Class 38, Messrs. W. S. & R. W. Brocklehurst's Bronze Gazzi Cock—a good bird.

The Esquilant Challenge Trophy. The competition this year was for the best in Section No. 1, bred in the current year and the following varieties competed :—Holle Croppers, Pouters, Pigmy Pouters, and Norwich Croppers. The winner being Mr. A. T. Jupe's Blue Pouter Hen, Pen 2354, Class 223. The reserve, Pen 2475, Class 234, Mr. H. Whitley's Norwich Cropper.

The Fulton Challenge Trophy for the best young bird bred in the current year in Section No. 4,—the varieties competing this year were Dragoons, Antwerps, Show Homers, Exhibition Homers, the winner being Mr. T. Wilkinson's Blue Dragoon Hen, Pen 54, Class 6, and reserve Messrs. Matthews & Lewis' Exhibition Homer, Pen 2181, Class 202.

The N.P.A. Challenge Certificates this year numbered 54, as compared with 56 in 1934 and 47 in 1933 when they were first instituted. The numbers vary each year according to the number of classes in competition in each breed, and according to the way in which the colours are divided ; also when classes have to be cancelled certificates are withheld, which is only right, otherwise they become too easy to win, and their value is lessened considerably. It is interesting to note that since this very popular scheme was instituted by the N.P.A. in 1933, to the end of December, 1934, there were only 19 birds that could actually claim the total of Full Championship, as follows :—1 Antwerp, the property of Mr. H. Driver ; 7 Modenas, 5 the property of Messrs. W. S. & R. W. Brocklehurst, 1 Mr. C. A. Tattersall and 1 Mr. McCreath ; 1 Dragoon belonging to Mr. A. H. Dilworth ; 1 Self Tumbler belonging to Mr. J. Lister ; 3 African Owls, 1 belonging to Mr. McCreath, 1 to Dr. J. S. Peebles, 1 to Messrs. Laurie & Hedley ; 2 Magpies, 1 belonging to Mr. E. B. Wright and 1 to Mr. G. H. Hestler ; 1 Oriental Turbit, the property of Mr. Prince Smith ; 1 English Owl belonging to Mr. J. F. Forrest ; 1 Runt, the property of Mr. J. L. Sears, and 1 Pigmy Pouter, the property of Mr. H. N. Leighton—a most interesting record which proves how hard it is for a bird to become a champion, when one considers the great number of Certificates offered during these two years at all the big Shows.

The following is an account of different breeds exhibited at the 1935 Dairy Show :—

Dragoons numbered 252 entries in 29 classes as compared with 263 entries in 28 classes last year, 11 less with an extra class. Mr. G. Parks judged the adults and yearlings and reported that in his classes the exhibits were quite up to the usual standard and that practically all were in first class condition. The Blues were exceptionally good, the young winning Blue hen as near perfection as possible, while the Blue Chequers do not seem to make much headway, but seem to be falling back both in colour and cases. The Silver and Grizzle classes were of high class quality throughout and the Red Chequers adults were one of the finest lot seen—not much to choose between them. The Reds, Yellows and Whites are not improving much, but there were a few good specimens amongst those shown. Altogether they were a very creditable lot.

Owing to Mr. O. Thornton being unable to judge the Young Classes, Mr. F. C. Hannent took his place, and found the standard quite up to the usual, though perhaps most of the young birds were a little backward in the moult. The Young Blues were a wonderful lot, and the best seen for many years.

The George Cotton Challenge Cup for best Cock bred in the current year was awarded to Pen 178, Class 19, the late Dr. C. H. Tattersall's young Silver Cock, also winner of the B.D.F.A. Silver Medal for the best young Dragoon Cock bred in 1935.

The George Cotton Challenge Cup for best Hen bred in the current year was awarded to Pen 54, Class 6, Mr. T. Wilkinson's young Blue Hen, a wonderful young pigeon, which also won the Fulton Trophy and B.D.F.A.'s Silver Medal for the best young Dragoon Hen bred in 1935.

The Hewitt Challenge Cup for best young White Dragoon bred in the current year was awarded to Mr. C. Cooper's Young White Hen, Pen 242, Class 28.

The Seven N.P.A. Certificates allotted to this Section were awarded as follows :—

		Class.	*Pen.*
Blues :	Mr. T. Wilkinson's young cock ...	6	54
Blue Chequers :	Mr. P. J. Barnes' adult cock	7	65
Grizzles :	Mr. W. Proctor-Smith's adult cock ...	13	126
Silvers :	The late Dr. C. H. Tattersall's adult hen	18	169
Red or Yellow :	Mr. G. Wilkinson's adult hen	22	199
Whites :	Mr. C. Cooper's young hen	28	242
Red Chequers or A.O.C. :	Mr. W. L. Wilkinson's Red Chequer	29	247

Modenas numbered 541 entries in 43 classes as compared with 439 entries in 44 classes last year, an increase of 102, with one class less, a very good average, and a wonderful display of birds. Mr. Walter Butcher who judged the Gazzi class this year stated that when he first judged Modenas at the Dairy Show 36 years ago, there was one class, " Modena, C. or H." with 10 entries and five exhibitors, all the birds being Gazzis.

This year of the various colours, the Blues were the most numerous and distinctly the best. Many of them were very smart and pleasing : the Champion Gazzi being found in this Section. Some of the Tricolours too were particularly handsome, and when good, a bird of this sort is perhaps the most striking of all Modenas.

The Blacks were less numerous ; they have not improved much of late. The Classes with various colours, Bronze, Tricolours, etc., were well filled and in these there were some very nice birds ; it was not easy to sort them out. On the whole the Gazzis of the present day do not, all things considered, show much improvement on those of 35 years ago. Good ones are hard to breed, and few fanciers have the patience to persevere with them. Mr. J. Vort judged the Argents and Blue Schiettis and Mr. E. Gee the remaining classes, and found in all classes that the quality was well up to the Dairy Show standard. The birds were shown in very good condition considering the bad moulting season, and competition was very keen, with the result that very good birds had to go cardless.

The Association's Silver Medal for the best young Gazzi bred in the current year was awarded to Pen 277, Class 32, Messrs. W. S. & R. W. Brocklehurst's young Blue Cock, also winning the N.P.A. Certificate. The Association's Silver Medal for the best young Schietti bred in the current year was awarded to Pen 532, Class 56, the same bird winning the N.P.A. Certificate, and the B.D.F.A.'s Gold Medal for the best young bird bred in 1935, the property of Messrs. W. S. & R. W. Brocklehurst, a grand young pigeon.

The eleven N.P.A. Certificates (the same number as last year) were awarded as follows :—

GAZZI :—		*Class.*	*Pen.*
Blue :	Messrs. W. S. & R. W. Brocklehurst's young blue cock	32	277
Black :	Mr. E. P. Norton's adult black hen	35	309
Bronze or Tie :	Messrs. W. S. & R. W. Brocklehurst's adult bronze cock	38	329
A.O.C. :	Messrs. W. S. & R. W. Brocklehurst's adult red cock	42	387
ARGENTS :—			
Blue or Black :	Mr. W. R. McCreath's adult cock	46	429
A.O.C. :	Mr. W. F. Holmes' young cock	52	490

SCHIETTI :—

Blue :	Messrs. W. S. & R. W. Brocklehurst's young cock	56	532
Black :	Mr. A. C. Tattersall's adult cock	58	564
Red, Yellow, White, or A.O.C. Self :	Mr. W. Proctor Smith's adult yellow hen	63	631
Bronze or Tie :	Messrs. W. S. & R. W. Brocklehurst's young tri-colour cock	68	707
A.O.C. :	Messrs. Jones & Spivey's young silver hen	72	787

Archangels numbered 54 entries in four classes as compared with 71 in four classes last year, a decrease of seventeen entries on last years total, a very creditable average and it was surprising to find the majority of the birds in such excellent condition. The winners in each class were not difficult to find, all being birds with exceptional lustre and considerable weight was given to birds carrying a wealth of green on the wing butts, a most difficult point to get without showing bronze. Many of the cocks had sooty hackles, a very unsightly fault, whilst several of the unplaced old cocks were far too dark underneath. Hens varied considerably both in size and type, except the winning birds which were all birds of quality.

The Association's Bronze Medal for best bird bred in the current year was awarded to Mr. H. Leigh-Lye's young cock, Pen 832, Class 76. The N.P.A. Certificate was awarded to Mr. R. Dodd's adult cock. Mr. N. R. Steel judged this section.

Oriental Frills numbered 159 entries in 14 classes as compared with 131 entries in 13 classes the year before, an increase of 28 with an extra class, quite a good representative entry for this variety of pigeon and with very few exceptions the birds were shown in good condition. The adults were a good average lot. In the young classes some very promising birds were to be seen and should turn out good adult show pigeons. The most improved colour was the Bluette ; this year there were some outstanding birds on exhibition which is very pleasing as they have been somewhat neglected in recent years. The Oriental Turbits, Turbiteers, and Blondinettes showed some improvement, but the Bluelaced Satinettes were a poor lot, and were not up to the usual standard generally met with at the Dairy Show.

The Oriental Frill Club's Cup was awarded to Mr. W. A. Smith's young Satinette, Pen 946, Class 87, also taking the Association's Silver Medal for best young bird.

The four N.P.A. Certificates were awarded as follows :—

		Class.	*Pen.*
Oriental Turbits :	Mr. W. M. Prince Smith	78	853
Blondinettes :	Mr. R. de C. Peele	84	910
Satinette :	Mr. H. Seaton	88	959
A.O.V. Oriental :	Mr. H. P. Scatliff	80	860

Mr. H. N. Helliwell judged this section.

Turbits numbered 30 entries in 4 Classes as compared with 40 entries in 5 classes, two classes having been cancelled. Turbits don't seem as popular as in former years and the entry at most shows is decreasing yearly. The few birds exhibited at the Dairy Show were of exceptionally good quality and shown in splendid condition. The Association Bronze Medal for best young bird bred in the current year was awarded to Mr. W. R. Lobb's young cock, Class 93. Pen 1020, and the N.P.A. Certificate was awarded to Mr. W. R. Lobbs, Pen 1026, Class 94. Mr. R. H. Vasey judged this section.

Nuns numbered 70 entries in 7 classes as compared with 76 entries in 6 classes last year, a decrease of six entries with one class more. The Red and Yellows did not come up at all well. The Blacks and Duns not only were good in numbers, but some very excellent birds were penned.

The Association Bronze Medal for best young bird bred in the current year was awarded to Mr. T. M. Abernethy's young Dun, Pen 1081, Class 101, and the two N.P.A. Certificates, one for Black or Dun was awarded to Mr. T. M. Abernethy's Adult Black, Pen 1037, Class 98, and the other for best Red, Yellow or Blue, was awarded to Mr. W. J. Smillie's Blue, Pen 1106, Class 104. This section was judged by Mr. C. A. Balchin.

Short Faced Tumblers numbered 67 entries in 6 classes as compared with 55 entries in the same number of classes last year, an increase of twelve entries. A considerable improvement on the previous year both in numbers and general quality, the birds being generally more advanced in moult. There were several outstanding exhibits which were hard to place. The Association Bronze Medal for best young bird bred in the current year was awarded to Colonel R. Burlton, Pen 1172, Class 110, and the same exhibit won one of the two N.P.A. Certificates, the other Certificate being awarded to Colonel R. Burlton's adult Almond Cock, Pen 1111, Class 105. Mr. G. A. Frith judged this section.

Long Faced Tumblers Selfs numbered 154 entries in 15 classes this year as compared with 129 entries in 13 classes last year, an increase of 25 entries with an additional two classes, and one class of Red & Self cancelled. Mr. E. O. Jeffries, one of the judges of this section, reports that he does not consider the Red Self were up to their usual standard and the great majority appeared to have bad feathers, a serious fault which at one time appeared to have been eradicated. The Whites showed general improvement and also he found no signs of manipulated beak settings. In regard to the Blue Bars the general improvement was particularly marked and in conjunction with his co-judge he had no difficulty in awarding the B.D.F.A. Silver Medal for best young bird bred in the current year to a young Blue Bar Cock.

The Soft Coloured Bars are also gaining rapidly in general type, although in some cases the ground colour leaves much to be desired.

Mr. W. E. Woods, the other Self Judge, found the general standard good, and in conformity with the Self Club's Rules, but found fault with the bad feathering on the neck of several of the Yellow Selfs, which is really amounting to a frill and should be eliminated before it develops further than it has during the past few years.

The Association Silver Medal for best young bird bred in the current year was awarded to Mr. G. E. Danks' wonderful young Blue Cock, which also won one of the two N.P.A. Certificates with Pen 1295, Class 122, and the other N.P.A. Certificate was awarded to Mr. W. E. Horsfall's adult Black Self Cock.

Balds and Beards numbered 106 entries in 11 classes as compared with 104 entries last year. Mr. R. T. Rennie who judged this section found that the quality and standard was well up to previous years. The Association Silver Medal for best Bald or Beard bred in the current year was awarded to Miss G. B. Wells' Black Baldhead Cock, Pen 1339, Class 128. The three N.P.A. Certificates were awarded as follows :—

			Class.	*Pen.*
Black Baldhead :	Miss G. B. Wells' young cock	...	128	1339
A.O.C. Baldhead :	Mr. A. E. Wells. young cock	...	131	1308
Beards :	Mr. C. Sharpe Magee's cock ...	...	133	1395

Muffed Tumblers numbered 13 entries in 2 classes as compared with 34 entries in 4 classes last year. Mr. E. O. Jeffries who judged this section found them well up to the standard, and with less evidence of over trimming, a fact which indicates that breeders are concentrating upon breeding markings, an improvement in type should follow as a sequence.

Magpies numbered 64 entries in 6 classes as compared with 59 in the same number of classes as last year, an increase of five, and one class cancelled. These were a good lot and showed a general improvement on last year's exhibits, particularly in the Blacks, where the refinement was very noticeable. Yellows, while having great height of head, still need a lot of improvement to bring them up to the Blacks. Reds do not show any great improvement ; colour needs some attention. It was surprising that the Any Other Colour class had to be cancelled as there are many good typical Blue and Silvers bred each year. The Association Bronze Medal for best young bird bred in the current year went to a beautiful young Black Hen of Mr. R. B. Wright, Pen 1469, Class 142. The same exhibit winning the N.P.A. Certificate, and the other N.P.A. Certificate for Reds or Yellow was awarded to Mr. G. H. Kristler's Yellow Hen, Pen 1483, Class 144. Mr. G. Cousins judged this section.

Variety Pigeons numbered 100 entries in 9 classes compared with 126 entries in 14 classes last year. The total of a hundred was made up of the following breeds :—*Muffed Ice*, 14 ; *Swifts*, 9 ; *Spots*, 9 ; *Silesian Swallows*, 14 ; *Gimples*, 20 ; *Priests* (2 classes), 17 ; *Starling or Swabian*, 9 ; *Shields*, 8.

These beautiful Variety Pigeons were shown in splendid condition and form a very interesting section of the Pigeons. The Association Bronze Medal for best bird bred in the current year in this section was awarded to Mr. J. E. John's Silesian Swallow, Pen 1601, Class 155, and the N.P.A. Certificate awarded for the best bred Priest went to Mr. H. Whitley's Adult cock, Pen 1556, Class 151. Mr. A. R. W. Woods judged this section.

Racing Pigeons numbered 217 entries in 8 classes as compared with 179 last year in the same number of classes, an increase of 38 entries and twelve better than in 1933. Mr. E. C. Hardy judged classes 161 to 164 and Mr. C. H. Peppcatt took the place of Mr. E. H. Lulham who was the appointed judge for the remainder and reports that he was very favourably impressed with the splendid condition of the bulk of the exhibits in his classes, some being well balanced, well feathered and in wonderful condition for the time of year.

The Osman Memorial Cup for best Racing Pigeon was awarded to Mr. R. J. Worton's Cock, Pen 1774, Class 163, and the Association Bronze Medal for the best opposite sex to Cup Reserve went to Mr. C. R. Simon's young Hen, Pen 168, Class 160.

Flying Tipplers numbered 36 entries in 2 classes as compared with 49 entries in 2 classes last year, a decrease of 13 on last year's total. Mr. R. F. Hunt judged this section and reports both good classes, difficult to separate the winners, but condition of moult finally settled this, some good birds being left out on account of not being ready.

Antwerp Smerles numbered 53 entries in 4 classes as compared with 49 entries in 8 classes last year, a much better average and showed a slight increase on last year. The quality was well maintained, young hens were somewhat weak, but in the young cock classes there were several outstanding birds showing a marked improvement in type. The Association Bronze Medal for best young bird bred in the current year was awarded to Mr. W. J. Rayner's young cock, Pen 1896, Class 169, and the N.P.A. Certificate went to Mr. W. J. Rayner's adult cock, Pen 1870, Class 167. Mr. F. Collingbourne judged this section.

Jacobins numbered 23 entries in three classes as compared with 31 entries in three classes last year, one class being cancelled. Though a poor entry, they were a grand lot for quality, quite above the average for the early time of the year. The winners were exceptionally good in their wealth of feather, evenness of chain and strength of hood. The Association Bronze Medal for best young bird bred in the current year was awarded to Mr. J. Mundell's young cock, Pen 1929, Class 173. Mr. C. A. House judged this section.

English Owls numbered 35 entries in 5 classes as compared with 47 entries in 6 classes last year, one class being cancelled and a decrease of 12 entries this year. Though not a very big entry of this variety, the quality on the whole showed a great advance and the absence of coarse, heavy eared birds was very noticeable. The young Blues were an exceptionally good lot—not a bad one in the class.

The Gatty Perpetual Challenge Cup for best bird bred in the current year going to Mr. W. Prince Smith's Blue Cock, also one of the N.P.A. Certificates, Pen 1969, Class 179. The other N.P.A. Certificate was awarded to Mr. J. F. Forrest's young Hen, Pen 1963, Class 178. Mr. H. Jary judged this section.

African Owls numbered 53 entries in 5 classes as compared with 32 entries in 3 classes last year, twenty-one more entries with two additional classes, an improvement on last year's entries. As I have not received the judge's report on this section, I am only able to state that the Gatty Perpetual Challenge Cup for best bird bred in the current year was awarded to Mr. W. A. Smith, Pen 2012, Class183, and the N.P.A. Certificate awarded to Mr. M. C. Sparrow, Pen 1985, Class 181. Mr. W. A. Edwards judged this section.

Antwerps numbered 20 entries in 4 classes as compared with 32 entries in 4 classes last year, 12 less than last year, a very poor average indeed, and this section looks like disappearing from the Dairy Schedule in future years if more support is not forthcoming. Though few, the quality was good and it was pleasing to note the absence of wet eyes and coarse cases ; often seen in former years in the show pen. The Bronze Medal of the Association for best bird bred in the current year was awarded to Mr. H. Driver's young Hen, Pen 2047, Class 189, and the N.P.A. Certificate awarded to Mr. H. Driver's adult Cock, Pen 2032, Class 186. Mr. H. C. Allen judged this section.

Show Homers numbered 95 entries in 8 classes as compared with 43 entries in 4 classes last year, an increase of 52 entries and four more classes this year. It is pleasing to note that this variety is coming to the fore again and numbers increasing in the classes which have always been good at the Dairy Show until the last two years. The judge's opinion was that the exhibits were well up to the good quality seen at the Dairy Show and were shown in splendid condition, one or two being of exceptional merit. The Lovell Trophy was awarded to Mr. R. Cocker, Pen 2058, Class 190. The Association Silver Medal for best bird bred in the current year was awarded to Mr. G. R. Hartley's young cock, Pen 2079, Class 192. The N.P.A. Certificate for best Chequers was awarded to Pen 2058, Class 190 and the N.P.A. Certificate for Any Other Colour was awarded to Pen 2140, Class 197. Mr. J. W. Swan judged this section.

Exhibition Homers numbered 78 entries in 6 classes as compared with 65 entries in 6 classes last year, an increase of thirteen entries. Mr. Percy Taylor who judged this section reports that the classes were rather keenly contested, especially in the Any Other Colour classes, though he did not think any improvement had been made in type of breed since last year, birds were put down in very good condition. The Association Bronze Medal for best bird bred in the current year was awarded to Messrs. Matthews & Lewis' Pen 2181, Class 202.

Holle Croppers numbered 30 entries in 4 classes as compared with 27 entries in 3 classes last year—a rather disapponting entry, but the quality was splendid and birds well shown. The Association Bronze Medal and N.P.A. Certificate for best young bird bred in the current year and also best Holle in section was awarded to Mr. F. Robinson's young cock, Pen 2246, Class 207. Mr. A. C. House judged this section.

Polish Lynx numbered 21 entries in 2 classes, this being the first time a separate section for this breed has been staged at the Dairy Show. The birds came up well and were of very high quality and well shown. The N.P.A. Certificate was awarded to Mr. G. A. Drake's Cock, Pen 2258, Class 208.

Runts numbered 26 entries in 4 classes as compared with 28 entries in 4 classses last year. Mr. A. C. House who judged this section reports that the Runts though few were good. Breeders do not now show the big, coarse exhibit which prevailed years ago; most of the exhibits were shapely in skull, also fine in quality of their wattles and cases. The exhibits generally showed substance without coarseness. The Association Bronze Medal for best bird bred in the current year was awarded to Mr. J. S. Sears' Pen 2280, Class 211.

Carriers numbered 46 entries in 8 classes as compared with 47 entries in 7 classes last year, a much worse average than last year, which was very bad as compared with the big classes seen at the Dairy Show a few years ago, and the type of exhibit is far behind the Carriers of a few years back ; breeders seem reduced to very few, judging from the names of the exhibitors in the Show Catalogue of to-day. The Association Silver Medal for best bird bred in the current year was awarded to Mr. J. B. Cooper's young cock, Pen 2329, Class 219. The Carrier Club Cup for best adult and the N.P.A. Certificate for best Carrier was awarded to Mr. J. B. Cooper, Pen 2303, Class 214. Mr. A. J. Warwick judged this section.

Pouters numbered 68 entries in 2 classes as compared with 18 entries in 2 classes last year. Though excellent in quality, several of the exhibits were very backward in moult. The Esquilant Trophy winner was found in this section, the same exhibit winning the N.P.A. Certificate for best Pouter and was awarded to Mr. H. Whitley's Hen, Pen 2355, Class 223. Mr. H. Bushell judged this section.

Pigmy Pouters numbered 83 entries in 9 classes as compared with 111 entries in 14 classes, a decrease in entries of 28, and 5 in classes. The quality is much improved as regards type. Unfortunately many of the exhibits were in rather a backward condition which made the judging difficult and lengthy.

The Captain St. John Hornby Challenge Trophy for the best adult bird was awarded to Messrs. Brooks & Pope, Pen 2401, Class 227.

The Association Silver Medal for best young bird bred in the current year was awarded to Mr. B. O. Dickinson's Hen, Pen 2372, Class 224. I have no information as to who were the winners of the two N.P.A. Certificates awarded in this section. Mr. C. H. Lock judged this section.

Norwich Croppers numbered 48 entries in 4 classes as compared with 36 entries in 4 classes last year, an increase of 12 on last year. Mr. H. Bushell who judged this section reports that the exhibits taken throughout were of a very high order and the best he had ever judged, condition being excellent. The Association Bronze Medal for best bird bred in the current year and the N.P.A. Certificate for best Cropper was awarded to Mr. H. Whitley, Pen 2475, Class 234.

Fantails numbered 43 entries in 4 classes as compared with 67 entries in 7 classes last year, a decrease of 24 entries and 3 classes last year. Mr. B. Morris-Pugh judged this section again this year, and reports it is impossible to report progress owing to the limited number of birds and few exhibitors, owing to square pens being used instead of round. I have no details as to who was awarded the Bates' Cup or the N.P.A. Certificates, or the Association Bronze Medal for best young bird in the current year. The Jones Trophy awarded to the Best Pigeon in the Show and prior to the current year was awarded to Mr. F. H. Jarvis's adult Hen, Pen 2508, Class 238.

Selling Classes numbered 23 entries in 3 classes as compared with 72 entries in 4 classes last year, one class being cancelled—the Any Variety young Hen class. It is surprising that there should have been such a big drop as 49 entries and a class cancelled in this section this year as these classes always fill well, and many bargains are to be had by fanciers at low prices. Mr. A. C. House was down to judge this section but it was actually taken by Mr. J. Laidler.

In concluding this report of the Pigeon Section of the 1935 Dairy Show, I can only once again add my very best thanks to all the members of my Committee, and to the Stewards for their hard work, loyal support and help during the penning in and out, and on the Judging morning of the Show. We finished up with no queries, and the birds all well got away in splendid time to catch the late trains to their destinations. My sincere thanks are also due to Mr. F. J. Bull and his very willing staff for all their assistance during the Show; to Mr. A. Wallis in the Pigeon Office and to Mr. E. O'Dell who acted as my Assistant during the Show, and relieved me of much work in the office. I am extremely grateful to all concerned who helped me to carry out the work of this section. I trust the Exhibitors and public alike are satisfied with all that is done for the birds' welfare, and also for the arrangements which enable the public to view such a grand display of Pigeons as is provided by the British Dairy Farmers' Association year by year.

AWARD OF PRIZES, DAIRY SHOW, 1935

TROPHIES AND SPECIAL PRIZES FOR DAIRY COWS AND HEIFERS IN MILK.

Open to all Breeds.

THE BRITISH DAIRY FARMERS' ASSOCIATION'S SUPREME INDIVIDUAL CHAMPIONSHIP CHALLENGE TROPHY, for the Cow gaining the greatest number of points on Inspection, in the Milking Trials (provided the quality of the milk analysed during the test does not fall below 3 per cent. fat, nor below 8.5 per cent. of non-fatty solids at any Milking), and in the Butter Test. Awarded to David Smith, for Ayrshire Cow " Thornhill Mermaid 2nd."

THE " BLEDISLOE " CHALLENGE TROPHY (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the best exhibit of good all-round Dairy Cows. Awarded to Ayrshires.

THE " MORRISON " CHALLENGE TROPHY (presented by the late MAJOR J. A. MORRISON, D.S.O.), for the Cow exhibited at three consecutive London Dairy Shows at which cattle was exhibited, gaining the greatest total number of points (at the three Shows) on Inspection, in the Milking Trials and Butter Tests. Awarded to George Wills for South Devon Cow " Milkmaid 3rd."

THE " BARHAM " CHALLENGE CUP (presented by MR. G. TITUS BARHAM), for the Cow gaining the greatest number of points in the Milking Trials. Awarded to J. H. Brown, for British Friesian Cow " Marshgreen Kathleen ".

THE " SPENCER " CHALLENGE CUP (presented by the late MR. J. F. SPENCER, Coronation Year, 1902), for the cow gaining the greatest number of points on Inspection, in Milking Trials and Butter Tests. Awarded to David Smith, for Ayrshire Cow " Thornhill Mermaid 2nd."

THE " SHIRLEY " CHALLENGE CUP (presented by the late MR. J. L. SHIRLEY), for the Cow giving the greatest average daily weight of milk in the Milking Trials, such milk to contain not less than 3 per cent. fat and 8.5 per cent. of non-fatty solids. Awarded to J. H. Brown, for British Friesian Cow " Marshgreen Kathleen."

THE " BREEDERS " MILK CHALLENGE TROPHY (presented by MRS. R. M. FOOT) for the Cow or Heifer, entered in or eligible for the Herd Book of its Breed, obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight for milk with lactation points added. Amimals eligible to compete for this Trophy must have been bred by the Owner, and must be stalled in the section for licensed cattle or have passed the tuberculin test on or after 1st August, 1935. Awarded to Mrs. R. M. Foot, for Jersey Cow " White Hill Happy May."

THE NATIONAL MILK CHALLENGE CUP, for the Cow or Heifer, entered or eligible for the Herd Book of its breed, obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight for Milk with lactation points added. Awarded to Mrs. R. M. Foot for Jersey Cow " White Hill Happy May."

THE NATIONAL BUTTER CHALLENGE CUP, for the Cow or Heifer, entered or eligible for the Herd Book of its breed, obtaining in the Butter Tests the greatest number of points per 1,000 lbs. live weight for Butter with lactation points added. Awarded to Mrs. H. Hawkins for Jersey Heifer " Empire Mary."

SPECIAL PRIZE OF £10 (offered by SIR ROBERT L. MOND, J.P.), for two animals, the Progeny of any particular Bull, awarded to J. N. Drummond, for " Bargower Queenie 6th " and " Bargower Silverbell 14th " (Ayrshires).

Open only to Shorthorns.

THE " DESBOROUGH " CUP (presented by LORD DESBOROUGH, K.G., G.C.V.O.), for the Cow, exhibited in Classes 1 to 2, gaining the highest points in the Milking Trials. Awarded to A. Brittain & Son, for " Steppingley Clover's Gift 4th."

THE " CALVERT " CHALLENGE CUP presented by MR. HORATIO CALVERT), for the best Pedigree Dairy Shorthorn Cow or Heifer upon Inspection only. Awarded to John Crowe, for " Fair Foggathorpe."

THE " SHORTHORN " BUTTER CHALLENGE CUP (presented by MAJOR S. P. YATES), for the Shorthorn Cow of Heifer entered in Classes 1 to 5 complying with all conditions of the Butter Tests, also gaining the greatest number of points under the qualified headings. Awarded to Capt. A. S. Wills, for " Thornby Foggathorpe 30th."

THE "THORNTON" CHALLENGE CUP (presented by MESSRS. JOHN THORNTON & CO.), for the best Group of three Pedigree Dairy Shorthorn Cows and/or Heifers upon Inspedtion only. Awarded to Major G. Miller Mundy, for "Knolls Elliot Fernleaf 2nd," "Redrice Darling 4th" and " Cherry Bloom 8th."

EXTRA PRIZE OF £25, offered jointly by the Shorthorn Society of the United Kingdom of Great Britain and Ireland and the Dairy Shorthorn (Coates's Herd Book) Association for the Dairy Shorthorn Cow or Heifer, pedigree or non-pedigree, gaining most points on Inspection, in the Milking Trials and Butter Tests. Awarded to Cambridge University Farm for " Cantab Janet 3rd."

TWO EXTRA PRIZES of £5 offered jointly by the Shorthorn Society and the Dairy Shorthorn Association, for the two Cows exhibited in Class 2 gaining most points on Inspection and in Milking Trials. Awarded to John Crowe, for " Fair Foggathorpe " and to W. H. Vigus for " Revels Graceful Lady."

TWO EXTRA PRIZES of £5 each offered jointly by the Shorthorn Society and the Dairy Shorthorn Association for the two Heifers exhibited in Class 3 gaining most points on Inspection and in Milking Trials. Awarded to R. Tustian, for " Greattew Ruby Clare " and to W. H. Vigus, for " Revels Tulip 2nd."

EXTRA PRIZE of £10 offered jointly by the Shorthorn Society and Dairy Shorthorn Association for the Cow exhibited in Class 4 and entered, or accepted for entry, in the Grading Registers of either the Shorthorn Society or the Dairy Shorthorn Association, gaining most points on Inspection and in Milking Trials. Awarded to Cambridge University Farm, for " Cantab Janet 3rd."

Open only to British Friesians.

THE "THORNTON" CHALLENGE CUP (presented by MESSRS. JOHN THORNTON & Co.), for the best group of three Pedigree British Friesian Cows and/or Heifers upon Inspection only. Awarded to Cecil Ball, for "Abingworth Hazel," "Oakham Dainty Gem" and "Oakham Dolce."

Open only to South Devons.

A SILVER CHALLENGE CUP (presented by the SOUTH DEVON HERD BOOK SOCIETY), for the Pedigree South Devon Cow gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to George Wills, for "Milkmaid 5th."

Open only to Devons.

THE "BUSK" PERPETUAL CHALLENGE CUP (presented by Friends of the late WILLIAM GOULD BUSK of Wraxhall, Dorset), for the Devon Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials, Butter Tests, and for the Milk Record for the 12 months ended 1st October, 1935. Awarded to H. G. Mayo for "Corton Comet."

Open only to Red Polls.

THE "THORNTON" PERPETUAL CHALLENGE CUP (presented by MESSRS. JOHN THORNTON & CO.), for the Red Poll Cow of Heifer gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to Mrs. H. D. Lewis, for "Eastwell Marshmallow."

Open only to Ayrshires.

THE "ROWALLAN" CHALLENGE CUP (presented by LORD ROWALLAN), for the Ayrshire Cow or Heifer registered or eligible for registration with a number in the Ayrshire Cattle Herd Book, gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to David Smith, for "Thornhill Mermaid 2nd."

Open only to Guernseys.

THE "STAGENHOE" CHALLENGE CUP (presented by MRS. W. BAILEY-HAWKINS), for the Guernsey Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to Carl Holmes, for "Dairymaid of Riduna."

Open only to Jerseys.

THE "BLYTHWOOD" PERPETUAL CHALLENGE BOWL (presented by THE RT. HON. LORD BLYTH OF BLYTHWOOD), for the best Jersey Cow or Heifer bred in Great Britain or Ireland and entered or eligible for entry in the English Jersey Herd Book, on Inspection. Awarded to M. F. North, for "Gracious Lady."

THE "BLYTHWOOD" PRODUCTION CHALLENGE BOWL, presented by the HEIRS OF THE LATE MR. J. H. SMITH-BARRY, for the Jersey Cow or Heifer gaining the greatest number of points in the Milking Trials and in the Butter Tests, provided that the animal has been bred in Great Britain or Ireland. Awarded to Mrs. R. M. Foot, for "White Hill Happy May."

THE "LOXWOOD" JUBILEE CHALLENGE CUP (presented by MR. M. F. NORTH) will be awarded to the Owner of the Jersey Cow or Heifer obtaining the highest number of points for Milk, Butter, Lactation, and Inspection. The average butter-fat to be not less than 4.5. Awarded to Ovaltine Dairy Farm, for "Queen's Dream Lady."

GOLD, SILVER AND BRONZE MEDALS (presented by the ENGLISH JERSEY CATTLE SOCIETY) for the first three animals in the Butter Test, obtaining not less than 42 points. Awarded to J. W. McCallum for " Sonata " ; Ovaltine Dairy Farm, for " Queen's Dream Lady " and to J. W. McCallum, for " Foxwarren Harriet."

Open only to Kerries.

A SILVER CHALLENGE CUP (presented by the BRITISH KERRY CATTLE SOCIETY), for the Kerry Cow gaining the greatest number of points in the Milking Trials. . Not awarded.

Open only to Dexters.

THE " LODER " PERPETUAL CHALLENGE CUP (presented by LADY LODER), for the Dexter Cow or Heifer gaining the most points on Inspection, in the Milking Trials and Butter Tests. Awarded to Lady Loder for " Grinstead Nightingale 3rd."

Inspection and Milking Trials Prizes.

CLASS 1.—DAIRY SHORTHORN COW.—Entered in or accepted for Coates' Herd Book. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old during a lactation period of 45 weeks, recorded by a recognised Milk Recording Society. *First* Inspection (£10), to Sir Martin J. Melvin, Bart. for " Wild Eyes Duchess 4th." *Second* Inspection (£5) and *Extra* Inspection (£5) to Major G. Miller Mundy for " Knolls Elliot Fernleaf 2nd." *Third* Inspection (£3) to A. Thomas Loyd for "Lockinge Darlington 2nd." *First* Milking Trial (£12) to A. Brittain & Son for " Steppingley Clover's Gift 4th." *Second* Milking Trial (£6) to E. H. Birley for " Harescombe Margaret." *Third* Milking Trial (£3 10s.) to R. Tustian, for " Greattew Daphne."

CLASS 2.—DAIRY SHORTHORN COW.—Entered in or accepted for Coates' Herd Book. Born after 1st August, 1930, and which has produced two or more calves. *First* Inspection (£5) to John Crowe, for " Fair Foggathorpe." *Second* Inspection (£3) to C. J. Allday for " Fothering Foggathorpe 2nd." Third Inspection (£2) to Major G. Miller Mundy for " Cherry Bloom 8th." *Fourth* Inspection (£1) to St. Clere Estates, Ltd., for " St. Clere Eileen 3rd." *Fifth* Inspection (10s.) to Major G. Miller Mundy for " Redrice Darling 4th." *First* Milking Trial (£6) to W. H. Vigus for " Revels Graceful Lady " *Second* Milking Trial (£3 10s.) to St. Clere Estates, Ltd. for " St. Clere Ruby 6th." *Third* Milking Trial (£2 10s.) to R. Tustian for " Greattew Foggathorpe 3rd." *Fourth* Milking Trial (£1 5s.) to Capt. A. S. Wills for " Thornby Foggathorpe 43rd." *Fifth* Milking Trial (15s.) to R. Tustian for " Greattew Lady Jane."

CLASS 3.—DAIRY SHORTHORN HEIFER.—Entered in or eligible for Coates' Herd Book. Born on or after 1st August, 1932, and having produced only one calf. *First* Inspection (£5) to W. H. Vigus for " Revels Tulip 2nd." *Second* Inspection (£3) and *Third* Milking Trial (£2 10s.) to R. Tustian for " Greattew Ruby Clare." Th*ird* Inspection (£2) to A. Thomas Loyd for "Lockinge Lady Rotha." *First* Milking Trial (£6) to Sir Martin J. Melvin, Bart. for "Copsale Wild Eyes 17th." *Second* Milking Trial (£3 10s.) to W. H. Vigus for " Revels Barrington Beauty."

CLASS 4.—DAIRY SHORTHORN COW.—Not eligible for Classes 1 or 2. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old during a lactation period of 45 weeks, recorded by a recognised Milking Recording Society. *First* Inspection (£10) to J. H. Robinson, for " Garnet's Jewel." *Second*

Inspection (£5) and *Third* Milking Trial (£3 10s.) to St. Clere Estates, Ltd. for " St. Clere Colleen 2nd." *Third* Inspection (£3), *Extra* Inspection (£5) and *First* Milking Trial (£12) to Cambridge University Farm for " Cantab Janet 3rd." *Second* Milking Trial (£6) to Tudge and Maybery, for " Whittingslow Onyx."

CLASS 5.—DAIRY SHORTHORN HEIFER.—Born on or after 1st August, 1932, and having produced only one calf. Not eligible for Class 3. *First* Inspection (£5) and *Second* Milking Trial (£3 10s.) to J. & H. Jackson for " Prudence " *Second* Inspection (£3) and *Third* Milking Trial (£2 10s.) to H. Brazier for " Pretty Lass." *Third* Inspection (£2) to J. & H. Jackson for " Fuchsia." *First* Milking Trial (£6) to Cambridge University Farm for " Cantab Janet 4th."

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COW.—Entered in or accepted for the Herd Book. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£10) and *Extra* Inspection (£5) to F. R. Wood for " Bendish Nancy 25th." *Second* Inspection (£5) to John Evens & Son for " Burton Suttie 3rd." *Third* Inspection (£3) to Scothern Dairy Co. for " Lobthorpe Princess." *First* Milking Trial (£12) to Chivers & Sons, Ltd., for " Histon Duchess 20th." *Second* Milking Trial (£6) to Chivers & Sons, Ltd., for "Histon Dairymaid 65th."

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1932, and having produced only one calf. *First* Inspection (£5) to John Evens and Son for " Burton Young Cherry 25th." *Seceond* Inspection (£3) and *third* Milking Trial (£2 10s.) to F. R. Wood for " Bendish Bess 18th." *Third* Inspection (£2) to Scothern Dairy Co., for " Scothern Manor Amy 17th." *First* Milking Trial (£8 10s.) to F. Sainsbury for " Wratting Cherry 3rd." *Second* Milking Trial (£5) to John Evens & Son for " Burton Cynthia 5th."

CLASS 8.—BRITISH FRIESIAN COW.—Entered in or accepted for the Herd Book or the Supplementary Register. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£10) to A. Weightman for " Herrington Keg O' Milk " *Second* Inspection (£5) and *Extra* Inspection (£5) to A. J. Creed for " Hawthorn Katja." *Third* Inspection (£3) to A. Weightman for " Chellaston Eva." *First* Milking Trial (£12) to J. H. Brown for " Marshgreen Kathleen." *Second* Milking Trial (£6) to Cecil Ball for " Abingworth Dainty." *Third* Milking Trial (£3 10s.) to J. Martin for " Netherhall Jean."

CLASS 9.—BRITISH FRIESIAN COW.—Entered in or accepted for the Herd Book or the Supplementary Register. Born after 1st August, 1930, and previous to 1st August 1932. *First* Inspection (£5) and *Third* Milking Trial (£2 10s.) to Lord Rayleigh for " Terling Lead 42nd." *Second* Inspection (£3) to G. J. Caddey for " Egham Marigold 6th." *Third* Inspection (£2) and *First* Milking Trial (£6) to Cecil Ball for " Abingworth Hazel," *Second* Milking Trial (£3 10s.) to J. H. Brown for " Marshgreen Bessie."

Class 10.—British Friesian Heifer.—Entered in or eligible for the Herd Book or the Supplementary Register. Born on or after 1st August, 1932, and having produced only one calf. *First* Inspection (£5) to T. G. Fairhead for "Bordeaux Marvel." Second Inspection (£3) to W. Curtis & Son for "Barwyke Serynte Lilac." *Third* Inspection (£2) to Cecil Ball for "Oakham Dolce." *First* Milking Trial (£6) to Cecil Ball for "Oakham Dainty Gem." Second Milking Trial (£3 10s.) to J. Martin for "Netherhall Humbug 2nd." *Third* Milking Trial (£2 10s.) to F. J. Carter for "Chelmsford Lilac 3rd."

Class 11.—South Devon Cow.—Entered in or accepted for the Herd Book. Born or or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 7,500 lbs. at five years old or over, or 5,600 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£7) and *Second* Milking Trial (£5) to G. Wills for "Milkmaid 3rd." *Second* Inspection (£4), *Extra* Inspection (£5) and *First* Milking Trial (£8 10s.) to Dartington Hall, Ltd. for "Cinderella." *Third* Inspection (£2) to Miss J. Smith for "Crocus." *Third* Milking Trial (£2 10s.) to J. Rossiter for "Graceful."

Class 12.—South Devon Cow.—Entered in or accepted for the Herd Book. Born after 1st August, 1930, and previous to 1st August, 1932. *First* Inspection (£5) and *Second* Milking Trial (£3 10s.) to J. T. Dennis for "Winsor Alma." *Second* Inspection (£3) and *Third* Milking Trial (£2 10s.) to Dartington Hall, Ltd., for "Dartington Hall Nervous Alice 2nd." *Third* Inspection (£2) and *First* Milking Trial (£6) to G. Wills for "Milkmaid 5th."

Class 13.—South Devon Heifer.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1932, and having produced only one calf. *First* Inspection (£5) to Dartington Hall, Ltd., for "Dartington Belle 1st." *Second* Inspection (£3) and *First* Milking Trial (£6) to Dartington Hall, Ltd., for Dartington Cowslip 1st." *Third* Inspection (£2) and *Second* Milking Trial (£3 10s.) to G. Wills for "Rydon Milkmaid 7th."

Class 14.—Devon Cow.—Entered in or accepted for the Herd Book or the Supplementary Register. Cows entered in this Class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£7), *Extra* Inspection (£5) and *First* Milking Trial (£8 10s.) to H. G. Mayo for "Corton Comet." *Second* Inspection (£4) to A. J. P. Baker for "Woodrow Fancy." *Third* Inspection (£2) and *Second* Milking Trial (£5) to G. E. Braddick for "Ruby 4th."

Class 15.—Red Poll Cow.—Entered in or accepted for the Herd Book. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£10) and *Extra* Inspection (£5) to S. Paul for "Samford Witchgirl." *Second* Inspection (£5) to Earl of Radnor for "Longford Ruby 7th." *Third* Inspection (£3) and *Fourth* Milking Trial (£1 5s.) to Mrs. H. D. Lewis for "Eastwell Marshmallow." *Fourth* Inspection (£1) to Lt.-Col. Sir Merrik R. Burrell, Bart. for "Knepp Cowslip 14th." *Fifth* Inspection

(10s.) to A. W. Gordon for "Sporle Elm Lady." *First* Milking Trial (£12) to Mrs. H. D. Lewis for "Combwell Rosie." *Second* Milking Trial (£6) to S. Paul for "Holton Rainbow 6th." *Third* Milking Trial (£3 10s.) to Earl of Radnor for "Longford Bitter Sweet." *Fifth* Milking Trial (15s.) to C. H. Cearn for "Weston Peggy."

CLASS 16.—RED POLL COW.—Entered in or accepted for the Herd Book. Born after 1st August, 1930, and previous to 1st August, 1932. *First* Inspection (£7) to Capt. A. Richardson for "Seven Springs Question." *Second* Inspection (£4) and *Second* Milking Trial (£5) to S. Paul for "Kirton Sundial." *Third* Inspection (£2) and First Milking Trial (£8 10s.) to Brooks (Mistley), Ltd. for "Mistley Amethyst." *Third* Milking Trial (£2 10s.) to S. Paul for "Ashmoor Marvel."

CLASS 17.—RED POLL HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1932, and having produced only one calf. *First* Inspection (£5) to A. C. Smith for "Ashmoor Daisy." *Second* Inspection (£3) and *First* Milking Trial (£6) to J. G. Gray for "Abbeycombe Rosina." *Third* Inspection (£2) to S. Paul for "Kirton Oaken." *Second* Milking Trial (£3 10s.) to J. G. Gray for "Abbeycombe Heather." *Third* Milking Trial (£2 10s.) to Lady Chesham for "Latimer Meadow Dell."

CLASS 18.—WELSH BLACK COW.—Entered in or accepted for the Herd Book. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£7) and *First* Milking Trial (£8 10s.) to Hon. Lady Shelley-Rolls for "Grace." *Second* Inspection (£4) to N. Vosper for "Llanychan Mwynder." *Third* Inspection (£2) to University of North Wales for "Snowdon Fuchsia." *Second* Milking Trial (£5) to Mrs. E. H. Spottiswoode for "Gwern Endeavour." *Third* Milking Trial (£2 10s.) to N. Vosper for "Llanychan Tetsi."

CLASS 19.—AYRSHIRE COW.–Entered in the Herd Book or Appendices. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£10), *Extra* Inspection (£5) and *First* Milking Trial (£12) to David Smith for "Thornhill Mermaid 2nd." *Second* Inspection (£5) to A. Cochrane for "Lesserlinn Rosebud 2nd." *Third* Inspection (£3) and *Second* Milking Trial (£6) to James Turner for "Loaninghead May." *Third* Milking Trial (£3 10s.) to J. N. Drummond for "Bargower Miss Donald 3rd."

CLASS 20.—AYRSHIRE COW.–Entered in the Herd Book or Appendices. Born after 1st August, 1930, and previous to 1st August, 1932. *First* Inspection (£5) and *First* Milking Trial (£6) to W. A. Thomson for "Dalpeddar Whisper." *Second* Inspection (£3) to R. Dunlop for "Seckford Empress." *Third* Inspection (£2) and *Second* Milking Trial (£3 10s.) to J. N. Drummond for "Bargower Miss Donald 7th." *Third* Milking Trial (£2 10s.) to A. Cochrane for "Stannock Whitie 5th."

CLASS 21.—AYRSHIRE HEIFER.–Registered or eligible for registration in the Herd Book or Appendices. Born on or after 1st August, 1932, and having produced only one calf. *First* Inspection (£5) and *First* Milking Trial (£6) to J. N. Drummond for "Bargower Silverbell 14th." *Second* Inspection (£3) to G. Barbour for "Auchengibbert Ena." *Third* Inspection (£2) and *Second* Milking Trial (£3 10s.) to J. N. Drummond for "Bargower Queenie 6th." *Fourth* Inspection (£1) and *Third* Milking Trial (£2 10s.) to Clement Estates Co. for "Howwell Gloria." *Fourth* Milking Trial (£1 5s.) to Hannah Dairy Research Institute for "Kirkhill Betsy 2nd."

CLASS 22.—GUERNSEY COW.—Entered in or accepted for the Herd Book. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£7), *Extra* Inspection (£5) and *Second* Milking Trial (£5) to Capt. H. J. Pilbrow for " Bon Espoir Lily 4th." *Second* Inspection (£4) and *First* Milking Trial (£8 10s.) to Carl Holmes for " Dairymaid of Riduna." *Third* Inspection (£2) and *Third* Milking Trial (£2 10s.) to E. D. Fairweather for " Rex's Primrose of Maison De Bas."

CLASS 23.—GUERNSEY COW.—Entered in or accepted for the Herd Book. Born after 1st August, 1930, and which has produced two or more calves. *First* Inspection (£5) and *First* Milking Trial (£6) to H. A. Y. Dyson for " Primrose Poltimore of Payhay." *Second* Inspection (£3) to Carl Holmes for " Rosey of Goodnestone 62nd." *Third* Inspection (£2) to Hon. A. E. Guinness for " Hewton Lodge Dorine 4th." *Second* Milking Trial (£3 10s.) to Lord Swaythling for " Bladen Meadow Sweet 6th." *Third* Milking Trial (£2 10s.) to E. H. Lane for " Molly 2nd of Crabwood."

CLASS 24.—GUERNSEY HEIFER.—Entered in or eligible for the Herd Book, and which has produced her first and only calf at or under the age of two years and nine months. *First* Inspection (£5) and *Second* Milking Trial (£3 10s.) to Lord Swaythling for " Bladen Gay Lass 2nd." *Second* Inspection (£3) and *Third* Milking Trial (£2 10s.) to Mrs. J. S. Pyman for " Norsebury Rosemary 2nd." *Third* Inspection (£2) and *First* Milking Trial (£6) to Hon. A. E. Guinness for " Reading Ina."

CLASS 25.—JERSEY COW.—English or Island bred, entered in or accepted for the Herd Book. Born on or previous to 1st August, 1930. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£7) and *Fourth* Milking Trial (£1 5s.) to Ovaltine Dairy Farm for " Eucalia's Jest." *Second* Inspection (£4) to M. F. North for " Gracious Lady." *Third* Inspection (£2) to Ovaltine Dairy Farm for " Playmate of Oaklands." *First* Milking Trial (£8 10s.) to Mrs. R. M. Foot for " White Hill Happy May." *Second* Milking Trial (£5) to M. F. North for " Wotton Bella Donna." *Third* Milking Trial (£2 10s.) to J. W. McCallum for " Sonata."

CLASS 26.—JERSEY COW.—English or Island bred, entered in or accepted for the Herd Book. Born after 1st August, 1930, and which has produced two or more calves. *First* Inspection (£5), *Extra* Inspection (£5) and *First* Milking Trial (£6) to Ovaltine Dairy Farm for " Queen's Dream Lady." *Second* Inspection (£3) to W. E. Press for " Deborah " *Third* Inspection (£2) and *Third* Milking Trial (£2 10s.) to Mrs. G. J. Caddey for " Cambraie Elfa 2nd." *Second* Milking Trial (£3 10s.) to Mrs. H. Hawkins for " Everdon Bowlina's Flora."

CLASS 27.—JERSEY HEIFER.—English or Island bred, entered in or eligible for the Herd Book, and which has produced her first and only calf at or under the age of 2½ years. *First* Inspection (£5) to Oavaltine Dairy Farm for " Sporting Lily." *Second* Inspection (£3) and *Second* Milking Trial (£3 10s.) to M. F. North for " Conyboro Premature 6th." *Third* Inspection (£2) to Ovaltine Dairy Farm for " Ovaltine Wonder." *First* Milking Trial (£6) to Mrs. H. Hawkins for " Empire Mary." *Third* Milking Trial (£2 10s.) to Col. Lord Digby for " Minterne Muriel."

Class.—28.—Kerry Cow.—Entered in or accepted for the Herd Book. Cows entered in this class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. Cancelled.

Class 29.—Kerry Heifer, entered in or eligible for the Herd Book. Born on or after 1st August, 1932, and having produced only one calf. Cancelled.

Class 30.—Dexter Cow.—Entered in or accepted for the Herd Book. Cows entered in this class must have yielded a minimum of 5,000 lbs. at five years old or over, or 3,750 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£5), *Extra* Inspection (£5) and *Third* Milking Trial (£2 10s.) to Comtesse E de Pret Roose for "Grinstead Dollie 2nd." *Second* Inspection (£3) and *First* Milking Trial (£6) to Lady Loder for "Grinstead Nightingale 3rd." *Third* Inspection (£2) to Comtesse E. de Pret Roose for "Grinstead Constance 4th." *Second* Milking Trial (£3 10s.) to Lady Loder for "Princess 2nd of Grinstead."

Class 31.—Dexter Heifer.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1932, and having produced only one calf. Cancelled.

BUTTER TESTS.

Shorthorns, entered in Classes 1 to 7.—*First* (£10 and Silver Medal) to Capt. A. S. Wills for "Thornby Foggathorpe 30th." *Second* (£5 and Bronze Medal) to Chivers & Sons, Ltd. for "Histon Fanny 6th." *Third* (£3) to E. H. Birley, for "Harescombe Margaret." *Fourth* (£2) to C. J. Allday for "Fothering Foggathorpe 2nd."

British Friesians, entered in Classes 8 to 10.—*First* (£10 and Silver Medal) to Cecil Ball for "Abingworth Dainty." *Second* (£5 and Bronze Medal) to J. Martin for "Netherhall Jean." *Third* (£3) to Cecil Ball for "Abingworth Hazel." *Fourth* (£2) to J. H. Brown for "Marshgreen Kathleen."

Red Polls, entered in Classes 15 to 17.—*First* (£10 and Silver Medal) to Lt.-Col. Sir Merrik R. Burrell Bart. for "Knepp Cowslip 14th." *Second* (£5 and Bronze Medal) to Mrs. H. D. Lewis for "Eastwell Marshmallow." *Third* (£3) to Mrs. H. D. Lewis for "Combwell Rosie." *Fourth* (£2) to Earl of Radnor for "Longford Bitter Sweet."

Ayrshires, entered in Classes 19 to 21.—*First* (£10 and Silver Medal) to D. Smith for "Thornhill Mermaid 2nd." *Second* (£5 and Bronze Medal) to J. N. Drummond for "Bargower Miss Donald 7th." *Third* (£3) to J. N. Drummond for "Bargower Miss Donald 3rd." *Fourth* (£2) to J. N. Drummond for "Bargower Miss Donald 5th."

Guernseys, entered in Classes 22 to 24.—*First* (£10 and Silver Medal) to C. Holmes for "Dairymaid of Riduna," *Second* (£5 and Bronze Medal) to Mrs. Yorke for "Peter's Jennette." *Third* (£3) to Hon. A. E. Guinness for "Reading Ina." *Fourth* (£2) to E. D. Fairweather for "Rex's Primrose of Maison de Bas."

Jerseys, entered in Classes 25 to 27.—*First* (£10 and Silver Medal) to J. W. McCallum for "Sonata." *Second* (£5 and Bronze Medal) to Ovaltine Dairy Farm for "Queen's Dream Lady." *Third* (£3) to J. W. McCallum for "Foxwarren Harriet." *Fourth* (£2) to Col. Lord Digby for "Minterne Mary."

Other Breeds, entered in Classes 11 to 14, 18, and 28 to 31.—Prizes of £3 to G. Wills for "Milkmaid 5th" (South Devon); H. G. Mayo for "Corton Comet" (Devon); Hon. Lady Shelley-Rolls for "Grace" (Welsh Black); Lady Loder for "Grinstead Nightingale 3rd" (Dexter). Prizes of £2 to J. T. Dennis for "Winsor Alma" (South Devon); H. G. Mayo for "Corton Orange" (Devon); Mrs. E. Spottiswoode for "Gwern Endeavour" (Welsh Black).

BULLS (Progeny of).

Class 32.—Dairy Shorthorn Bull (Progeny of).—Entered in or eligible for Coates' Herd Book. *First* (£5) to St. Clere Estates, Ltd. for "St. Clere Ruby 6th" and St. Clere Eileen 3rd," progeny of "Bourne Place Lord Pimpernel 2nd." *Second* (£3) to R. Tustian for "Greattew Lady Jane" and "Greattew Foggathorpe 3rd," progeny of "Iwerne Ruben." *Third* (£2) to C. J. Allday for "Fothering Babette 2nd" and "Fothering Foggathorpe 2nd," progeny of "Histon Foggathorpe Dairyman."

Class 33.—Lincolnshire Red Shorthorn Bull (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to Chivers & Sons, Ltd., for "Histon Dairymaid 65th" and "Histon Duchess 20th," progeny of "Bendish Dairy King." *Second* (£3) to F. R. Wood for "Bendish Nancy 25th" and "Bendish Bess 18th," progeny of "Ketteringham Milkman." *Third* (£2) to John Evens & Son for "Burton Young Cherry 25th" and "Burton Vic 28th," progeny of "Orma Eclipse."

Class 34.—British Friesian Bull (Progeny of).—Entered in or eligible for the Herd Book or Supplementary Register. No award.

Class 35.—Red Poll Bull (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to Mrs. R. M. Foot for "White Hill Charming Delight" and "White Hill Charming Rosemary," progeny of "White Hill Cub Hunter."

Class 36.—Ayrshire Bull (Progeny of).—Entered in or eligible for the Herd Book or Appendices. *First* (£5) to J. N. Drummond for "Bargower Queenie 6th" and "Bargower Silverbell 14th," progeny of "Bargower Straight Away." *Second* (£3) to J. N. Drummond for "Bargower Miss Donald 5th" and "Bargower Miss Donald 7th," progeny of "Bargower Brigadier." *Third* (£2) to J. Mackie for "Relief Sprightly" and "Relief Joan" progeny of "Relief Footstep."

Class 37.—Guernsey Bull (Progeny of).—Entered in or eligible for the Herd Book. No award.

Class 38.—Jersey Bull (Progeny of).—Entered in or eligible for the Herd Book. No entry.

Class 39.—Bull of any other Dairy Breed (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to G. Wills for "Milkmaid 3rd" and "Milkmaid 5th," progeny of "Wychbrook Champion" (South Devon).

SHE GOATS AND GOATLINGS.

TROPHIES AND CUPS.

Open to all Breeds.

THE "HOLMES PEGLER JUBILEE" PERPETUAL CHALLENGE TROPHY for the Goat gaining the highest number of points in the Milking Competition and by Inspection. Awarded to Mrs. G. McVay for "Bitterne Penelope." (British).

THE BRITISH GOAT SOCIETY'S TEN-GUINEA PERPETUAL CHALLENGE CUP for the best Goat over two years that has borne a kid. Awarded to Mrs. G. McVay for " Bitterne Penelope " (British).

THE "BARONESS BURDETT-COUTTS" PERPETUAL CHALLENGE CUP for the Goat gaining the highest number of points in the Milking Competition and by Inspection. Awarded to Mrs. G. McVay for " Bitterne Penelope " (British).

THE "TREMEDDA SELENE" PERPETUAL CHALLENGE CUP for the Goat gaining highest points in the Milking Competition, that has given 10 lbs. of milk in 24 hours at any Show under the B.G.S. Rules after January 1st, 1920, or has been shown to have produced at home 10 lbs. of milk on an average for ten days on an officially recognised record. Awarded to Mrs. G. McVay for " Bitterne Penelope " (British).

THE " DEWAR " PERPETUAL CHALLENGE CUP for a Female Goat in Milk, and Goatling. Awarded to Mrs. R. K. Morcom for " Cornish Saccharine " (British) and " Cornish Preserve " (British).

THE "RIDING" CHALLENGE CUP, offered by the BRITISH GOAT SOCIETY for the best group of three Goats exhibited by the same owner. Awarded to Miss Madoc for " Melverley Merrilees," " Melverley Mistake " and " Melverley Mistaken" (British Alpines).

THE "DEWAR" TWENTY-GUINEA PERPETUAL CHALLENGE TROPHY for the Goat two years old, other than an Anglo-Nubian, entered in the British Goat Society's Herd Book, gaining the highest number of points in the Milking Competition. Awarded to Mrs. G. McVay for " Bitterne Penelope " (British).

Open only to Toggenburgs.

THE "TOGGENBURG" PERPETUAL CHALLENGE CUP for the Pure Toggenburg Goat or Goatling entered in the Toggenburg Section of the British Goat Society's Herd Book, gaining the highest number of points on Inspection. Awarded to Miss E. M. Sheppard for "Widdington Willenda."

THE " STRAKER " CHALLENGE CUP for the Toggenburg Goat over two years old, gaining the highest number of points in either of the Milking Competitions. Awarded to Miss E. M Sheppard for "Widdington Willenda."

Open only to British Alpines.

THE " ABBEY " PERPETUAL CHALLENGE CUP for the British Alpine Goat gaining the highest number of points on Inspection and Milking. A goat to compete must be bred by the exhibitor, entered in the British Alpine Section of the British Goat Society's Herd Book, and obtain an award in its Inspection Class. Awarded to Mrs. W. A. Stirling for " Twinstead Threepennybit."

Open only to Saanens.

THE " SAANEN " CHALLENGE CUP for the Saanen Goat bred by the exhibitor and entered in the Saanen Section of the Herd Book, gaining the highest number of points on Inspection and in Milking. Awarded to Miss K. Parker for " Jean of Delamere."

Open only to British Saanens.

THE "CHAMBERLAIN" PERPETUAL CHALLENGE TROPHY for the British Saanen Goat gaining the highest number of points on Inspection and Milking. A goat to compete must be bred by the exhibitor, entered in the Saanen or British Saanen Section of the Herd Book, and obtain an award in its Inspection Class. Not Awarded.

Open only to Anglo-Nubians.

THE "POMEROY" PERPETUAL CHALLENGE CUP for the Anglo-Nubian Goat, entered in the Anglo-Nubian Section of the British Goat Society's Herd Book, gaining the highest number of points in the Milking Competition. Awarded to Mrs. K. Carswell for "Butterbur of Coltishall."

Open only to Goatlings.

A BRONZE MEDAL offered by the British Goat Society for the best Goatling in Classes 49 to 53. Awarded to A. A. Plimpton for "Dissington Scilla" (Saanen).

MILKING TRIAL PRIZES.

CLASS 40.—SHE-GOATS, FIRST KIDDERS.—*First* (£6 and Silver Medal) to Mrs. G. H. Perry for "Buckwyns Maggie" (British). *Second* (£3) to Mrs. G. McVay for "Murity" (British Alpine). *Third* (£1 10s.) to Mrs. W. A. Stirling for "Twinstead Threepennybit" (British Alpine). *Fourth* (10s.) to Miss Madoc for "Melverley Merrilees" (British Alpine).

CLASS 41.—SHE-GOATS.—Not eligible for Class 40. *First* (£6 and Silver Medal) to Mrs. G. McVay for "Bitterne Penelope" (British). *Second* (£3) to Miss K. Carswell for "Butterbur of Coltishall" (Anglo-Nubian). *Third* (£1 10s.) to Mrs. R. K. Morcom for "Cornish Saccharine" (British). *Fourth* (10s.) to Miss K. Parker for "Heddon Sarah" (British Saanen).

INSPECTION PRIZES.

CLASS 42.—SHE-GOATS, TOGGENBURG, entered or eligible for entry in the Toggenburg Section of the Herd Book. *First* (£2 10s.) to Miss E. M. Sheppard for "Widdington Willenda." *Second* (£1 5s.) to Miss Alexander for "Stockwell Calsie." *Third* (15s.) to Miss M. Henderson for "Riding Chloe."

CLASS 43.—SHE-GOATS, BRITISH ALPINE. *First* (£2 10s.) to Mrs. W. A. Stirling for "Didgemere Petunia." *Second* (£1 5s.) to Miss Madoc for "Melverley Merrilees." *Third* (15s.) to Mrs. W. A. Stirling for "Twinstead Threepennybit."

CLASS 44.—SHE-GOATS, SAANEN.—Entered or eligible for entry in the Saanen Section of the Herd Book. *First* (£2 10s.) to Miss K. Parker for "Jean of Delamere." *Second* (£1 5s.) to Miss M. Owen for "Dissington Snowball." *Third* (15s.) to G. E. Walsh for "Didgemere Siren."

CLASS 45.—SHE-GOATS, BRITISH SAANEN.—*First* (£2 10s.) to Miss M. W. Harrison for "Haste of Weald." *Second* (£1 5s.) to A. A. Plimpton for "Wells Pinkpearl." *Third* (15s.) to Miss M. W. Harrison for "Hartye of Weald."

CLASS 46.—SHE-GOATS, ANGLO-NUBIAN.—Entered or eligible for entry in the Anglo-Nubian Section of the Herd Book. *First* (£2 10s.) to Mrs. K. Carswell for "Butterbur of Coltishall." *Second* (£1 5s.) to Miss G. Constable for "Buttercup of Coltishall." *Third* (15s.) to Miss K. Pelly for "Theydon Banderol."

CLASS 47.—SHE-GOATS, BRITISH TOGGENBURG. *First* (£2 10s.) to Mrs. R. K. Morcom for "Cornish Praline." *Second* (£1 5s.) to Mrs. R. K. Morcom for "Cornish Plaudit." *Third* (15s.) to Miss Pope for "Bitterne Felicity."

CLASS 48.—SHE-GOATS, ANY OTHER VARIETY.—Not eligible for previous Classes. *First* (£2 10s.) to Mrs. G. McVay for "Bitterne Penelope" (British). *Second* (£1 5s.) to Mrs. G. H. Perry for "Buckwyns Maggie" (British). *Third* (15s.) to Mrs. R. K. Morcom for "Cornish Playful" (British).

CLASS 49.—GOATLINGS, BRITISH ALPINE, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Miss Madoc for "Melverley Mistaken." *Second* (£1 5s.) to Mrs. W. A. Stirling for "Twinstead Trilby." *Third* (15s.) to Miss Madoc for "Melverley Mistake."

CLASS 50.—GOATLINGS, SAANEN OR BRITISH SAANEN, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to A. A. Plimpton for "Dissington Scilla" (Saanen). *Second* (£1 5s.) to Miss K. Pelly for "Theydon Murella" (British Saanen). *Third* (15s.) to G. E. Walsh for "Ripton Sybil" (Saanen). *Fourth* (10s.) to Miss C. Booth for "Springfield Salvia" (Saanen).

CLASS 51.—GOATLINGS, ANGLO-NUBIAN.—Entered in or eligible for entry in the Anglo-Nubian section of the Herd Book, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Miss K. Pelly for "Theydon Belma." *Second* (£1 5s.) to Mrs. M. E. T. Howden for "Babs of Coltishall." *Third* (15s.) to Mrs. M. E. T. Howden for "Buttermilk of Coltishall."

CLASS 52.—GOATLINGS, TOGGENBURG OR BRITISH TOGGENBURG, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Miss K. R. Barnaby for "Bitterne Fame" (British Toggenburg). *Second* (£1 5s.) to Miss E. Alexander for "Stockwell Chorist" (Toggenburg). *Third* (15s.) to Miss M. W. Harrison for "Odina of Weald" (Toggenburg).

CLASS 53.—GOATLINGS, ANY OTHER VARIETY, not eligible for previous Classes, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Miss M. Owen for "Mostyn Meecha" (British). *Second* (£1 5s.) to Miss K. R. Barnaby for "Bitterne Favourite" (British). *Third* (15s.) to Mrs. W. A. Stirling for "Twinstead Trusty" (British).

CHEESE.

TROPHIES AND CUPS.

Open to all Varieties.

THE "LONSDALE" PERPETUAL CHALLENGE TROPHY (presented by the Earl of Lonsdale, K.G., G.C.V.O.) for the best exhibit of Cheese, made on the farm occupied by the Exhibitor, and the product of whole milk produced thereon. Awarded to W. Cole for Cheddar.

Open only to Cheddar.

CHAMPION CUP, value £10 10s. (presented by the CORPORATION OF THE CITY OF LONDON), for the best exhibit of Cheddar Cheese. Awarded to W. Cole.

Open only to Colonial Cheddar.

THE "BLEDISLOE" PERPETUAL CHALLENGE TROPHY, value 50 Guineas (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the best exhibit of Cheddar Cheese produced in the British Empire (overseas) excluding Irish Free State. Awarded to Orepuki Co-operative Dairy Co., Ltd., New Zealand.

THE "BLEDISLOE" PERPETUAL CHALLENGE CUP, value 50 Guineas (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the Provincial Area of New Zealand exhibiting the best Cheese. Awarded to the Province of Southland.

THE "HANSEN" CHALLENGE TROPHY, value £25 (presented by MESSRS. CHR. HANSEN'S LABORATORY, LTD.), for the best exhibit of Cheddar Cheese produced in the British Empire (overseas) excluding Irish Free State. Awarded to Orepuki Co-operative Dairy Co., Ltd., New Zealand.

Open only to Cheshire.

CHAMPION CUP, value £10 10s. (presented by the CORPORATION OF THE CITY OF LONDON) for the best exhibit of Cheshire Cheese. Awarded to H. Barnett.

THE "BLAND" CHALLENGE CUP (value 20 Guineas) and £5 in cash (presented by MR. C. BLAND) for the best exhibit of Cheshire Cheese. Awarded to H. Barnett.

Open only to Small Hard Pressed.

A SILVER FRUIT DISH (presented by MRS. A. S. McWILLIAM, M.B.E.), for the best exhibit of small pressed, quick-ripening cheese. Awarded to P. H. Walley.

Open only to Inter-County Class.

THE "INTER-COUNTY" CHALLENGE SHIELD (presented by the late JOHN BENSON), for the winner of the Inter-County Cheese Competition. Awarded to Monmouthshire.

CLASS 54.—STILTON (6 Cheeses). Open only to Dairy Farmers. (Factors or Factories not eligible to compete). No entry.

CLASS 55.—STILTON (12 Cheeses).—*First* (£10 and Silver Medal) to Colston Bassett and District Dairy, Ltd. *Second* (£5) to Wilts. United Dairies, Ltd., Harby. *Third* (£3) to Long Clawson Dairy, Ltd., Long Clawson.

CLASS 56.—CHEDDAR TRUCKLES. (6 Cheeses). *First* (£4) to S. McMinn. *Second* (£3) to W. H. Collins. *Third* (£2) to T. Durden. *Fourth* (£1) to S. T. White.

CLASS 57.—CHEDDAR (2 Cheeses, not less than 40 lbs. each).—*First* (£6) to W. Cole. *Second* (£4) to W. H. Collins. *Third* (£3) to E. G. White. *Fourth* (£2) to S. T. White. *Fifth* (£1) to F. Portch.

CLASS 58.—CHEDDAR AND CHEDDAR TRUCKLES. (4 Long-keeping Cheeses, not less than 10 lbs. each made on or before 31st July, 1935).—*First* (£7) to W. H. Collins. *Second* (£5) to S. T. White. *Third* (£4) to Osborne Bros. *Fourth* (£3) to C. M. Hallett. *Fifth* (£2) to B. H. J. W. White. *Sixth* (£1) to G. & J. Love.

CLASS 59.—CHEDDAR (8 Cheeses).—*First* (£12 and Silver Medal) to W. Cole. *Second* (£10) to C. M. Hallett. *Third* (£7) to S. T. White. *Fourth* (£5) to W. H. Collins. *Fifth* (£3) to W. Mathie. *Sixth* (£1 10s.) to W. C. Crawford. *Seventh* (10s.) to S. M. Hallett.

CLASS 60.—SMALL CHEDDAR (4 Cheeses, made at home, not exceeding 10 lbs. each). Open to Pupils who have received instruction at an Agricultural College or Farm School during 1934 or 1935.—*First* (£3) to Mrs. E. Marriott. *Second* (£2) to Miss J. Scenscall. *Third* (£1) to Mrs. P. M. Stratton, *Fourth* (10s.) to Mrs. D. Banwell.

CLASS 61.—CHEDDAR (2 Coloured or Uncoloured Cheeses of not less than 60 lbs. each). Open to makers only, and produced in the British Empire (Overseas), excluding Irish Free State.—*First* (Gold Medal) to Orepuki Co-operative Dairy Co., Ltd., New Zealand. *Second* (Silver Medal) to Wyndham Co-operative Dairy Co., Ltd., New Zealand. *Third* (Bronze Medal) to Thornbury Co-operative Dairy Co., Ltd., New Zealand.

CLASS 62.—CHESHIRE (8 Cheeses).—*First* (£12) to H. Barnett. *Second* (£8) to R. Walker. *Third* (£5) to Cookson's (Minshull), Ltd. *Fourth* (£4) to Sumners Dairies, Ltd. Fifth (£3) to P. H. Walley. *Sixth* (£2) to W. E. Blake. *Seventh* (£1) to J. D. Goodwin.

CLASS 63.—CHESHIRE (4 Coloured Cheeses, not less than 40 lbs. each).—*First* (£7) to H. Barnett. *Second* (£4) to Darnhall Dairy, Ltd. *Third* (£3) to P. H. Walley. *Fourth* (£2) to T. W. Edge. *Fifth* (£1) to T. E. Beckett.

CLASS 64.—CHESHIRE (4 Uncoloured Cheeses, not less than 40 lbs. each). *First* (£6) to T. E. Beckett. *Second* (£4) to P. H. Walley. *Third* (£2) to W. E. Blake. *Fourth* (£1) to H. H. Jones.

CLASS 65.—CHESHIRE (4 Coloured or Uncoloured Long-keeping Cheeses, not less than 40 lbs. each. Made on or before 31st July, 1935).—*First* (£7) to H. Barnett. *Second* (£5) to P. H. Walley. *Third* (£4) to T. E. Beckett. *Fourth* (£3) to Cookson's (Minshull), Ltd. *Fifth* (£2) to T. W. Young. *Sixth* (£1) to R. Walker.

CLASS 66.—CHESHIRE (4 Cheeses not less than 40 lbs. each). Open only to those who have never won a Prize for Cheshire Cheese at any Show of the British Dairy Farmers' Association.—*First* (£5) to Darnhall Dairy, Ltd. *Second* (£3) to S. Beckett. *Third* (£2) to J. Davies. *Fourth* (£1) to G. Walley.

CLASS 67.—SMALL CHESHIRE (4 Cheeses, made at home, not exceeding 10 lbs. each). Open to Pupils who have received instruction at an Agricultural College or Farm School during 1934 or 1935.—*First* (£3) to H. Barnett. *Second* (£2) to J. D. Goodwin. *Third* (£1) to Miss G. Lorenzen. *Fourth* (10s.) to Miss E. Wilson.

CLASS 68.—AYRSHIRE DUNLOPS (4 Cheeses, from 40 lbs. to 60 lbs. each).—*First* (£6) to D. Clark. *Second* (£4) to P. Wright. *Third* (£2) to F. J. Cochran. *Fourth* (£1) to S. McColm.

CLASS 69.—FACTORY CHEESE. (To be manufactured at and exhibited by a recognised Cheese Factory dealing with a minimum of 500 gallons of milk daily in the United Kingdom. 8 Cheeses of not less than 28 lbs. each (any variety).—*First* (£7) to United Creameries, Ltd., Tarff Branch. *Second* (£4) to Cookson's (Minshull) Ltd. *Third* (£2) to Scottish Milk Marketing Board, Galloway Branch. *Fourth* (£1) to Sumners Dairies, Ltd.

CLASS 70.—LEICESTER (2 Cheeses).—*First* (£4) to Ann's Farm House, Ltd. *Second* (£3) to British Dairy Institute. *Third* (£2) to F. W. Tomlinson.

CLASS 71.—LANCASHIRE (2 Cheeses, not less than 30 lbs. each).—*First* (£4) to J. Cowpe. *Second* (£3) to J. Parker. *Third* (£2) to R. Singleton.

CLASS 72.—LANCASHIRE (2 Long-keeping Cheeses, not less than 30 lbs. each, made on or before 31st July, 1935).—*First* (£5) to C. Cowell. *Second* (£4) to J. Laurenson. *Third* (£3) to Mrs. S. Mackereth. *Fourth* (£2) to R. Singleton.

CLASS 73.—DERBY (4 Uncoloured Cheeses, not less than 25 lbs. each).—*First* (£4) to Gloucestershire Dairy Co., Ltd. *Second* (£3) to J. M. Nuttall & Co., Ltd. *Third* (£2) to Brailsford & District Dairy Farmers' Association, Ltd.

CLASS 74.—DOUBLE GLOUCESTER (4 Cheeses, from 26 lbs. to 30 lbs each.—*First* (£4) to H. H. Pickford. *Second* (£3) to A. H. Hunt. *Third* (£2) to E. White.

CLASS 75.—SINGLE GLOUCESTER (4 Cheeses, from 13 lbs. to 15 lbs. each).—*First* (£4) to Mrs. F. J. Pain. *Second* (£3) to D. I. Banwell. *Third* (£2) to Osborne Bros.

CLASS 76.—CAERPHILLY (4 Cheeses, not exceeding 8 lbs. each).—*First* (£4) to Cheddar Valley Dairy Co. *Second* (£3) to R. G. Mapstone. *Third* (£2) to South Wales & Monmouthshire Dairies, Ltd.

CLASS 77.—WENSLEYDALE (6 Blue Moulded Cheeses).—*First* (£4) to British Dairy Institute. *Second* (£3) to A. Rowntree & Sons, Ltd., Coverham Factory. *Third* (£2) to J. Iceton.

CLASS 78.—SMALL HARD PRESSED (4 Long-keeping Cheeses, not less than 2 lbs. and not exceeding 8 lbs. each).—*First* (£5) to P. H. Walley. *Second* (£3) to D. I. Banwell. *Third* (£2) to Osborne Bros. *Fourth* (£1) to A. H. Hunt. *Fifth* (10s.) to Miss M. Blissett.

CLASS 79.—SMALL HARD PRESSED (4 Quick-ripening Cheeses, not less than 2 lbs. and not exceeding 8 lbs. each).—*First* (£5) to P. H. Walley. *Second* (£3) to H. H. Pickford. *Third* (£2) to W. H. Hobson. *Fourth* (£1) to D. I. Banwell. *Fifth* (10s.) to Gloucestershire Dairy Co., Ltd.

CLASS 80.—SMALL HARD PRESSED (4 Cheeses, not to exceed 2 lbs. each).—*First* (£2) to Monmouthshire Agricultural Institute. *Second* (£1) to Gloucester Dairy Supply, Ltd. *Third* (15s.) to Gloucestershire Dairy Co., Ltd. *Fourth* (10s.) to Osborne Bros. *Fifth* (5s.) to D. Box.

CLASS 81.—INTER-COUNTY COMPETITION for collections of 8 Smallholder Cheeses not exceeding 8 lbs. each, made by four individual persons in their own dairies, and who have received instruction in Cheesemaking at a County Council Cheese School—*First* (£8 and Shield) to Monmouthshire. Instructress: Miss M. M. Trippe. Competitors: Miss D. Edwards, Mrs. S. A. Harris, Miss D. Price and Miss I. Quinton. *Second* (£6) to Wiltshire. Instructress; Mrs. I. M. Bull. Competitors: Mrs. D. Banwell, Miss O. Hoddinott, Miss M. Punter and Miss J. Scenscall. *Third* (£4) to Gloucestershire. Instructress: Miss A. Colnett. Competitors: Miss M. Haine, Miss Marie Haine, Miss J. Shield and Miss J. Williams. *Fourth* (£3) to Angus. Instructress: Miss E. Watson. Competitors: Mrs. Anderson, Miss J. Brown, Miss M. Rattray and Mrs. T. Wilkie.

CLASS 82.—SWEET CREAM CHEESE, made from pure Cream only. No milk or curd to be added (6 Cheeses of approximately 4 ozs. each).—*First* (£1) to Miss H. E. Mitchell. Second (15s.) to J. H. N. Roberts. *Third* (10s.) to Hammetts Dairies, Ltd.

CLASS 83.—UNRIPENED SOFT CHEESE, other than Cream Cheese made direct from Milk. (4 Cheeses of approximately 8 ozs. each).—*First* (£1) to C. J. Allday. *Second* (15s.) to Miss R. James. *Third* (10s.) to Miss H. C. McLaren.

COLLECTION OF PRODUCE.

CLASS 84.—Open only to individual Women's Institutes. To consist of 1 lb. Fresh Butter; 1 Trussed Fowl; 8 ozs. of Cream (raw or scalded); 8 ozs. Cream Cheese (either in two packets of 4 ozs. each, or one packet of 8 ozs.) and 1 doz. Eggs. The Collection to be packed in a box and sent to the Show by Parcel Post. Packages taken into consideration when making awards.—*First* (£5) to Kilkhampton Women's Institute. *Second* (£3) to Lostwithiel Women's Institute. *Third* (£2) to Truro Women's Institute.

BACON.

Cups, Open only to Bacon-Pig Classes.

THE "C. & T. HARRIS (CALNE), LTD." PERPETUAL CHALLENGE CUP, presented by MESSRS. C. & T. HARRIS (CALNE), LTD., for the four best sides of Wiltshire Bacon in any one entry in Classes 88, 89, 90 or 91. Awarded to A. E. Law (Large White).

THE "WHITLEY" CHALLENGE CUP, value 20 Guineas (presented by the late MR. S. R. WHITLEY), for the first prize winner in Class 88. Awarded to A. E. Law (large White).

THE "BEALE" CHALLENGE CUP, value 20 Guineas (presented by CAPT. B. P. BEALE, M.C.), for the first prize winner in Class 89. Awarded to The Earl of Radnor (Large White).

THE "BLEDISLOE" BACON CHALLENGE CUP, value 20 Guineas (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the first prize winner in Class 90. Award to The Hertfordshire Institute of Agriculture (Large White and Essex).

THE "PIG RECORDING" CHALLENGE CUP, value 20 Guineas (presented by MR. WILLIAM DAVIDSON), for the exhibit gaining the highest number of marks in Class 91, which reaches the standard of a First Class Award. Awarded to H. R. Davidson (Large White).

CLASS 85.—FOUR SMOKED SIDES, Mild Cured in Wiltshire Style, with Ham attached.—*First* (Silver Medal) to Roberts & Birch (Burton), Ltd. *Second* (Bronze Medal) to C. & G. Prideaux, Ltd.

CLASS 86.—FOUR PALE DRIED SIDES, Mild Cured in Wiltshire Style, with Ham attached.—*First* (Silver Medal) to Roberts & Birch (Burton), Ltd.—*Second* (Bronze Medal) to C. & G. Prideaux, Ltd.

CLASS 87.—TWO SIDES OF BACON SMOKED, TWO SIDES OF BACON PALE DRIED, TWO HAMS SMOKED, AND TWO HAMS PALE DRIED (the weight of the sides not less than 56 lbs. and not more than 68 lbs. each. The Hams not less than 12 lbs. and not more than 20 lbs. each. Cancelled.

CLASS 88.—BACON PIGS.—Two Hogs and two Gilts, farrowed on or after 1st March, 1935, by a Registered Sire and out of a Registered Dam of the same Breed, to be entered by the Breed Society or Breeder.—*First* (£12 and Whitley Cup) to A. E. Law (Large White). *Second* (£6) to Chivers & Sons, Ltd. (Large White). *Third* (£3) to Earl of Radnor (Large White).

CLASS 89.—BACON PIGS (PEDIGREE). One Hog and one Gilt, farrowed on or after 1st March, 1935, by a Registered Sire and out of a Registered Dam of the same Breed.—*First* (£5 and Beale Cup) to Earl of Radnor (Large White). *Second* (£3) to W. T. Vint (Large White). *Third* (£2) to Hertfordshire Institute of Agriculture (Large White).

CLASS 90.—BACON PIGS—FIRST CROSS (One Hog and one Gilt, farrowed on or after 1st March, 1935, by a Pure-bred Sire and out of a Pure-bred Dam, the evidence required being the eligibility to register. *First* (£5 and "Bledisloe Cup) to Hertfordshire Institute of Agriculture (Large White and Essex). *Second* (£3) to A. E. Law (Large White and Middle White). *Third* (£2) to H. R. Davidson (Tamworth and Large White).

CLASS 91.—BACON PIGS—RECORDED. Two Hogs and two Gilts, from the same litter. One parent of the litter must be pure-bred, the evidence required being the eligibility to register. *First* Class Award (£4) to H. R. Davidson (Large White) and to T. L. Ward (Large White and Large Black).

CLASS 92.—FOUR SIDES OF BACON, suitable for the London Market. Produced in the British Empire (Overseas), excluding Irish Free State. Open to Curers only.—*First* (Silver Medal) and *Second* (Bronze Medal) to Canada Packers' Ltd., Canada.

HAMS.

CLASS 93.—FOUR PALE DRIED (long cut, of Winter or Spring cure, not over 14 lbs. weight.—*First* (Silver Medal) and *Second* (Bronze Medal) to J. E. Downs & Sons.

CLASS 94.—FOUR PALE DRIED (long cut, of Winter or Spring cure, over 14 lbs. weight).—*First* (Silver Medal) and *Second* (Bronze Medal) to Hollingsworths.

CLASS 95.—FOUR SMOKED (long cut, mild cured, not over 10 weeks cured. not over 15 lbs. weight).—*First* (Silver Medal) to Roberts and Birch (Burton), Ltd. *Second* (Bronze Medal) to J. E. Downs & Sons.

CLASS 96.—FOUR PALE DRIED (long cut, mild cured, not over 10 weeks cured, over 15 lbs. weight).—*First* (Silver Medal) and *Second* (Bronze Medal) to, Hollingsworths.

CLASS 97.—SELLING CLASS FOR TWO HAMS, ANY VARIETY.—*First* (£2) to Hollingsworths. *Second* (£1) and *Third* (10s.) to J. E. Downs & Sons.

BUTTER.

(Open to Makers only residing in any part of Great Britain or Ireland).

Cup for 2 lb. Butter Classes.

CHAMPION CUP, value £10 10s. (presented by the CORPORATION OF THE CITY OF LONDON), for the best exhibit of Butter in Classes 98 to 105 inclusive. Awarded to Miss P. Varker.

CLASS 98.—SLIGHTLY SALTED, open to farmers, their wives, sons and daughters, who have never won a Prize in the Butter Classes at any of the Association's Shows; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to R. Roach. *Second* (£2) to Miss I. Gwennap. *Third* (£1) to J. Iceton.

CLASS 99.—PERFECTLY FREE FROM SALT, the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. J. Mogford. *Second* (£2) to Miss P. Varker. *Third* (£1) to Miss M. W. Gwennap.

CLASS 100.—SLIGHTLY SALTED, the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. A. G. Dennis. *Second* (£2) to Miss P. Varker. *Third* (£1) to Mrs. J. Mogford. *Fourth* (10s.) to Mrs. P. Roach.

CLASS 101.—PERFECTLY FREE FROM SALT, the produce of Shorthorn and other Cattle and their Crosses (except Channel Islands and their Crosses); 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. A. G. Dennis. *Second* (£2) to Mrs. J. Mogford. *Third* (£1) to Miss A. M. Ward.

CLASS 102.—SLIGHTLY SALTED, the produce of Shorthorn and other Cattle and their Crosses (except Channel Islands and their Crosses); 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. P. Roach. *Second* (£2) to Mrs. J. Mogford. *Third* (£1) to J. Iceton. *Fourth* (10s.) to Mrs. A. G. Dennis.

CLASS 103.—SLIGHTLY SALTED, to be made from Scalded Cream only; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Miss P. Varker. *Second* (£2) to Miss A. M. Ward. *Third* (£1) to Mrs. J. Mogford.

CLASS 104.—PERFECTLY FREE FROM SALT, to be made from Scalded Cream only; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Miss A. M. Ward. *Second* (£2) to Miss I. Roach. *Third* (£1) to Mrs. J. Mogford.

CLASS 105.—ESPECIALLY FOR KEEPING, slightly Salted; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Miss P. Varker. *Second* (£2) to Mrs. J. Mogford. *Third* (£1) to Miss A. M. Ward. *Fourth* (10s.) to Miss M. W. Gwennap.

CLASS 106.—SLIGHTLY SALTED, made from Goats' Milk (butter colouring may be used), 1 lb. in ½-lb. lumps (brick shape). Cancelled.

CLASS 107.—Salted, in wooden boxes containing 12 1-lb. vegetable parchment wrapped bricks.—*First* (£3) to Adams (Wholesale) Dairies. *Second* (£2) to Kilross Co-operative Dairy Society, Ltd., *Third* (£1) to Shanagolden Co-operative Dairy Society, Ltd., *Fourth* (10s.) to Herbertstown Co-operative Agricultural & Dairy Society, Ltd.

CLASS 108.—Unsalted, in wooden boxes, containing 12 1-lb. vegetable parchment wrapped bricks.—*First* (£3) to Garryspillane Creamery. *Second* (£2) to Kilross Co-operative Dairy Society, Ltd. *Third* (£1) to Boherlahan Co-operative Agricultural & Dairy Society, Ltd. *Fourth* (10s.) to Kilmallock Co-operative Creamery, Ltd.

CLASS 109.—Salted, in wooden boxes containing 12 1-lb. vegetable parchment wrapped rolls. *First* (£3) to Shanagolden Co-operative Dairy Society, Ltd. *Second* (£2) to Kilross Co-operative Dairy Society, Ltd. *Third* (£1) to Herbertstown Co-operative Agricultural & Dairy Society, Ltd. *Fourth* (10s.) to Oola Co-operative Creamery, Ltd.

CLASS 110.—Salted, in bulk, in 28-lb. vegetable parchment lined wooden boxes. *First* (£3) to Oola Co-operative Creamery, Ltd. *Second* (£2) to Shanagolden Co-operative Dairy Society, Ltd. *Third* (£1) to Kilross Co-operative Dairy Society, Ltd. *Fourth* (10s.) to Garryspillane Creamery.

CLASS 111.—Salted, in bulk, in 56-lb. vegetable parchment lined wooden boxes.—*First* (£3) to Kilross Co-operative Dairy Society, Ltd. *Second* (£2) to Herbertstown Co-operative Agricultural & Dairy Society, Ltd. *Third* (£1) to Adams (Wholesale) Dairies. *Fourth* (10s.) to Oola Co-operative Creamery, Ltd.

CLASS 112.—TWO POUNDS, made up in the most attractive form for Table use. Scotch hands, moulds, &c., may be used for shaping the Butter (touching it directly by the human hand is prohibited). Exhibits, shown on a space 1 foot square, will be judged on quality as well as appearance. *First* (£4) to J. Iceton. *Second* (£2) to Mrs. A. G. Dennis. *Third* (£1) to Miss A. M. Ward.

CLASS 113.—FANCY OR ORNAMENTAL DESIGN, with foliage or other extraneous decoration. *First* (£4) to Miss H. M. Trenchard. *Second* (£2) to Miss M. Joslin. *Third* (£1) to J. Iceton.

CLASS 114.—SALTED (Produced in the British Empire (Overseas), excluding Irish Free State). One cube box containing not less than 56 lbs. *First* (Gold Medal) to Downs Co-operative Dairy Association, Ltd., Clifton, Australia. *Second* (Silver Medal) to Downs Co-operative Dairy Association, Ltd., Toowoomba, Australia. *Third* (Bronze Medal) to Warwick Co-operative Dairy Association, Ltd., Mill Hill, Australia.

CLASS 115.—UNSALTED (Produced in the British Empire (Overseas), excluding Irish Free State). One cube box containing not less than 56 lbs. *First* (Gold Medal) to Gayndah Co-operative Dairy Association, Ltd., Gayndah, Australia. *Second* (Silver Medal) to Oakey Co-operative Dairy Association, Ltd., Oakey, Australia. *Third* (Bronze Medal) to Chinchilla Co-operative Dairy Association, Ltd., Chinchilla, Australia.

CREAM.

CLASS 116.—CLOTTED CREAM, with a fat content of not less than 50 per cent. Open only to Wholesale Creameries and Factories. *First* (£2 and Silver Medal) to Primrose Dairy (Cornwall), Ltd. *Second* (£1) to W. White & Son. *Third* (10s.) to West Cornwall Creameries, Ltd.

CLASS 117.—CREAM. Each exhibit to contain one vessel of pasteurized cream with a fat content of not less than 50 per cent. and not more than 55 per cent.; one vessel of pasteurized, homogenized cream with a fat content of not less than 25 per cent. and not more than 30 per cent., and one vessel of pasteurized, homogenized cream with a fat content of not less than 15 per cent. and not more than 20 per cent. Open only to Wholesale Creameries and Factories. *First* (£2 and Challenge Cup) to Hammett's Dairies, Ltd. *Second* (£1) to Nottingham Co-operative Society, Ltd. *Third* (10s.) to Express Dairy Co., Ltd.

CLASS 118.—CLOTTED CREAM, with a fat content of not less than 50 per cent. Not open to Wholesale Creameries and Factories. *First* (£2 and Silver Medal) to G. Wills. *Second* (£1) Mrs. H. Robbins. *Third* (10s.) to W. R. Beer.

CLASS 119.—CREAM, OTHER THAN CLOTTED, with a fat content of not less than 50 per cent. and not more than 55 per cent. Not open to Wholesale Creameries and Factories. *First* (£2 and Silver Medal) to Miss I. Gwennap. *Second* (£1) to S. E. Butler. *Third* (10s.) to Miss E. T. Parker.

BOTTLED FRUITS, VEGETABLES AND JAMS.

SILVER MEDAL of the British Dairy Farmers' Association for the best Exhibit in Classes 120 to 129 awarded to Mrs. L. Thornley.

CLASS 120.—SIX BOTTLES OF SOFT FRUIT, of not less than 4 varieties. No entry.

CLASS 121.—SIX BOTTLES OF STONE FRUIT, of not less than 4 varieties.—Cancelled.

CLASS 122.—THREE BOTTLES OF SOFT FRUIT (distinct).—*First* (£1) to Miss J. Larter. *Second* (10s.) to Miss W. Alden. *Third* (7s. 6d.) to Mrs. W. S. Roberts.

CLASS 123.—THREE BOTTLES OF STONE FRUIT (distinct).—*First* (£1) to Mrs. W. S. Roberts. *Second* (10s.) to Mrs. V. Ford. *Third* (7s. 6d.) to Mrs. S. A. Clouston.

Class 124.—Three Bottles of Stone or Soft Fruit (distinct).—*First* (£1) to Mrs. V. Bainbridge. *Second* (10s.) to Mrs. A. L. Skeate. *Third* (7s. 6d.) to Mrs. D. Gee.

Class 125.—Three Cans of Stone or Soft Fruit (distinct).—*First* (£1) to Miss M. E. Rivers. *Second* (10s.) to Miss W. Alden. *Third* (7s. 6d.) to Mrs. A. F. Dalton.

Class 126.—Six Bottles of Vegetables, of not less than 4 varieties (Tomatoes admitted).—*First* (£2) to Mrs. L. Thornley. *Second* (£1) to Mrs. D. Gee. *Third* (10s.) to Mrs. P. E. Smith.

Class 127.—Three Bottles of Vegetables (distinct).—*First* (£1) to Mrs. V. Ford. *Second* (10s.) to Miss E. Onions. *Third* (7s. 6d.) to Miss J. Larter.

Class 128.—Three Cans of Vegetables (distinct)—*First* (£1) to Miss M. E. Rivers.

Class 129.—Three Jars of Jam (1 lb. each), dissimilar (any variety).—*First* (£1) to Mrs. M. Pearson. *Second* (10s.) to Miss W. Alden. *Third* (7s. 6d.) to Mrs. P. E. Smith

Class 130.—Co-operative Exhibit of Bottled Fruits (Preserved in plain water or Syrup), Vegetables, Jams, Fruit, Jellies, Pickles and Chutneys. Open only to individual Women's Institutes. Each Exhibit to be the work of not less than four Members. To consist of 3 bottles of Soft Fruit, 3 bottles of Stone Fruit, 3 bottles of Vegetables, 3 1-lb. jars of Jam or Fruit Jelly, 3 jars of Pickles or Chutney. All exhibits to be shown in glass containers and to be of not less than two varieties.—*First* (£5) to Wing Women's Institute. *Second* (£3) to Albourne Women's Institute. *Third* (£2) to Frensham Women's Institute.

HONEY, WAX, &c.

Class 131.—Six Jars of Extracted Light-coloured Honey (1 lb. each, approximate weight).—*First* (£1) to W. J. Goodrich. *Second* (15s.) to N. F. James. *Third* (12s. 6d.) to Mr. and Mrs. E. M. and E. L. Robson. *Fourth* (10s.) to J. Carver.

Class 132.—Six Jars of Extracted Medium-coloured Honey excluding Heather Honey (1 lb. each approximate weight).—*First* (£1) to W. J. Goodrich. *Second* (15s.) to A. J. Bates. *Third* (12s. 6d.) to H. Maben. *Fourth* (10s.) to E. R. Hunt.

Class 133.—Six Jars of Extracted Dark-coloured Honey, excluding Heather Honey (1 lb. each approximate weight).—*First* (£1) to Lady Farm Apiary. *Second* (15s.) to J. Carver. *Third* (12s. 6d.) to N. F. James. *Fourth* (10s.) to W. J. Goodrich.

Class 134.—Six Jars of Granulated Honey, excluding Heather Honey (1 lb. each, approximate weight).—*First* (£1) to Lady Farm Apiary. *Second* (15s.) to H. S. Barter. *Third* (12s. 6d.) to A. Underwood. *Fourth* (10s.) to W. J. Goodrich.

Class 135.—Six Jars of Extracted Heather Honey (1 lb. each, approximate weight).—*First* (£1) to H. S. Barter. *Second* (15s.) to N. F. James. *Third* (12s. 6d.) to Lady Farm Apiary. *Fourth* (10s.) to J. Fisher.

Class 136.—Six Jars of Granulated Honey (three each of 1 lb. (squat) and ½-lb.) (Ministry of Agriculture and Fisheries Registered Design 761017). National Mark Labels to be attached. *First* (£2) to Lady Farm Apiary. *Second* (£1 10s.) to A. Underwood. *Third* (£1) to N. F. James. *Fourth* (15s.) to W. J. Goodrich.

CLASS 137.—THREE SECTIONS OF HONEY, packed in the Ministry of Agriculture and Fisheries pattern cartons (Registered No. 757921), or cellophane wrappers. National Mark Labels to be attached. *First* (£2) to H. S. Barter. *Second* (£1 10s.) to Lady Farm Apiary. *Third* (£1) to N. F. James. *Fourth* (15s.) to W. Gibbons.

CLASS 138.—SIX SECTIONS OF COMB HONEY, excluding Heather Honey (size 4¼ by 4¼), approximate weight, 1 lb. each. *First* (£1) to H. S. Barter. *Second* (15s.) to W. Salmon. *Third* (10s.) to Lady Farm Apiary.

CLASS 139.—SIX SECTIONS OF HEATHER HONEY (size 4¼ by 4¼) (approximate weight, 1 lb. each).—*First* (£1) to C. H. Potter. *Second* (15s.) to Mrs. P. Lamb. *Third* (10s.) to H. S. Barter.

CLASS 140.—DISPLAY OF HONEY AND HONEY PRODUCTS, of any year staged in the most attractive form on a space 3 feet by 3 feet, and height not to exceed 4 feet above the Table. The Products not including Mirrors or Sheet Glass to be above 50 lbs. but not exceeding 100 lbs. in weight. (No flowers allowed).—*First* (£5) to H. S. Barter. *Second* (£2) to A. J. Bates.

CLASS 141.—ONE SHALLOW-FRAME OF COMB HONEY, suitable for extracting. *First* (15s.) to H. S. Barter. *Second* (10s.) to C. V. Byrnes. *Third* (7s. 6d.) to N. F. James.

CLASS 142.—EXHIBIT OF NOT LESS THAN 2 LBS. OF BEES' WAX, in not more than two cakes, the produce of the Exhibitor's apiary: extracted and cleaned by the Exhibitor or his assistants. *First* (15s.) to H. S. Barter. *Second* (10s.) to C. V. Byrnes. *Third* (7s. 6d.) to C. Prior.

CLASS 143.—INTERESTING AND INSTRUCTIVE EXHIBIT OF A PRACTICAL OR SCIENTIFIC NATURE CONNECTED WITH BEE CULTURE (not mentioned in the foregoing classes).—*First* (15s.) not awarded. *Second* (10s.) to H. S. Barter for uncapping tray.

CLASS 144.—THREE VESSELS OF EXTRACTED HONEY (as marketed). Produced in the British Empire (Overseas), excluding Irish Free State.—Cancelled.

INVENTIONS, &c.

CLASS 145.—ANY NEW APPARATUS OR INVENTION relating to the Dairy Industry, or one showing distinct and practical improvement, especially as to saving of labour, not eligible for competition in any other Class and not previously having recived an Award at any Show of the British Dairy Farmers' Association.—Gold Medal to U. D. Engineering Co., Ltd. for "Udec" Hydraulically Operated Bottle Filler and Aluminium Capper. Silver Medal to A. Herbert, Ltd. for Taylor's patent Feedright Weighing and Rationing Machine; and to Dairy Outfit Co., Ltd. for "Westfalia" No-foam Cream Separator. Bronze Medal to Wessex Supplies, Ltd. for "Wessex" Super Sterilizing Chest.

CLASS 146.—STERILISING EQUIPMENT, consisting of Boiler and Chest for the steam sterilisation of milk utensils on the farm. Price to be taken into account in relation to capacity of equipment. *First* (£3 and Silver Medal) to Dairy Supply Co., Ltd. for Type "D" Desco Sterilizing Outfit. *Second* (£2 and Bronze Medal) to Dairy Supply Co., Ltd. for Type "C" Desco Sterilizing Outfit.

CLASS 147.—ANY NEW APPARATUS OR INVENTION relating to the Poultry Industry, or one showing distinct and practical improvement, especially as to saving of labour,not eligible for competition in any other Class and not previously having received an award at any Show of the British Dairy Farmers' Association. Silver Medal to Swift & Sons for a Twenty-four Cage Single Hen Laying Battery (The Bergen Way), and to Curfew Electric Heaters for Automatic Cabinet Incubator. Bronze Medal to Papworth Industries for New Method of Air Circulation in a Cabinet Incubator; G. H. Elt for Automatic Water Fount; Spratts Patent, Ltd. for Hearson's All Electric Battery Brooder, and to D. McMaster & Co. for Sawyer Patent Outdoor Brooder.

JUNKET-MAKING CONTESTS.

THE "DAILY MAIL" PERPETUAL CHALLENGE BOWL (presented by the PROPRIETORS OF THE "DAILY MAIL") for the Champion Junketmaker.—Awarded to Miss J. M. Bickley.

CLASS 148.—JUNKET MADE WITH MILK.—Open only to those who have never won a First Prize for Junket-making at any Shows of the British Dairy Farmers' Association.

SECTION A.—*First* (£2) to Miss A. Peel. *Second* (£1) to Miss L. G. Taylor. *Third* (10s.) to Miss P. West.

SECTION B.—*First* (£2) to Miss M. Julian. *Second* (£1) to Miss M. Joslin. *Third* (10s.) to Miss M. E. Sandercock.

SECTION C.—*First* (£2) to Mrs. E. B. Weeks. *Second* (£1) to Miss W. M. Sweetland. *Third* (10s.) to Miss G. G. Olde.

CLASS 149.—CHAMPION CONTEST.—Open to First Prize Winners in the Sections of the preceding Class and to First Prize Winners at previous Shows of the British Dairy Farmers' Association, Champion of any year excepted.—*Prize* ("Daily Mail" Challenge Bowl and Silver Medal) to Miss J. M. Bickley.

BUTTER-MAKING CONTESTS.

THE "DESBOROUGH" PERPETUAL CHALLENGE CUP (presented by LORD DESBOROUGH, K.G., G.C.V.O.), for the Champion Buttermaker. —Awarded to Miss G. D. Matthews.

CLASS 150.—Open to those who have never won a Prize prior to September 9th, 1935, at any Show, wherever held.

SECTION A.—*First* (£4) to Miss V. Jones. *Second* (£3) to Miss M. Williams. *Third* (£2) to Miss I. Gwennap. *Fourth* (£1) to Miss E. C. Burgess.

SECTION B.—*First* (£4) to Miss M. E. Evans. *Second* (£3) to Miss M. L. Gray. *Third* (£2) to Miss L. Rogers. *Fourth* (£1) to Miss M. Woodruff.

SECTION C.—*First* (£4) to Miss P. Jones. *Second* (£3) to Miss D. M. Irvine. *Third* (£2) to Miss F. E. Sugden. *Fourth* (£1) to Miss E. Foster.

CLASS 151.—Open to Students who have attended Classes at the British Dairy Institute, Reading, for not less than one month, during the past two years. —*First* (£4) to Miss I. G. Roberts. *Second* (£3) to Miss R. Hambly. *Third* (£2) to Miss E. Foster. *Fourth* (£1) to Miss M. L. Gray.

CLASS 152.—For Men and Women who have never won a First Prize at any Show of the British Dairy Farmers' Association.

SECTION A.—*First* (£4) to Miss C. M. Lee. *Second* (£3) to Miss G. M. Cullen. *Third* (£2) to Miss A. Peel. *Fourth* (£1) to Miss B. J. Pickersgill.

Section B.—*First* (£4) to Miss M. W. Gwennap. *Second* (£3) to Miss P. Crump. *Third* (£2) to Miss M. A. Headon. *Fourth* (£1) to Miss M. K. Barker.

Section C.—*First* (£4) to Miss M. E. Sandercock. *Second* (£3) to Miss N. M. Paull. *Third* (£2) to Miss I. G. Roberts. *Fourth* (£1) to Miss M. Williams.

Section D.—*First* (£4) to Miss R. Hambly. *Second* (£3) to Miss D. J. Whittle. *Third* (£2) to Miss P. P. Paull. *Fourth* (£1) to Miss J. M. Olde.

Section E.—*First* (£4) to Miss W. M. Sweetland. *Second* (£3) to Mrs. E. V. Gully. *Third* (£2) to Miss J. Holland. *Fourth* (£1) to Miss E. Tucker.

Section F.—*First* (£4) to Miss M. Jamieson. *Second* (£3) to Miss K. Crow. *Third* (£2) to Miss D. Edwards. *Fourth* (£1) to R. S. G. Salter.

Class 153.—Champion Contest.—Open to Winners of First Prizes in the Section of preceding Classes or at any of the last three Shows of the British Dairy Farmers' Association, Champion of any year excepted. *First* ("Desborough" Challenge Cup and Silver Medal) to Miss G. D. Matthews. *Second* (£3 and Bronze Medal) to Miss M. M. Olde.

MILKERS' CONTESTS.

Class 154.—Open to Men and Women of 18 years and over.

Section A.—*First* (£5) to H. Corbishley. *Second* (£4) to H. Linford. *Third* (£3) to A. Clarke. *Fourth* (£1) to J. E. Roberts.

Section B.—*First* (£5) to Miss N. Evans. *Second* (£4) to Miss M. Harries. *Third* (£3) to Miss V. Dickin. *Fourth* (£1) to Miss K. Jones.

Section C.—*First* (£5) to T. G. Fowler. *Second* (£4) to M. K. Rosewell. *Third* (£3) to W. G. Wheeler. *Fourth* (£1) to H. J. Rees.

Section D.—*First* (£5) to Miss M. M. Olde. *Second* (£4) to R. E. Billington. *Third* (£3) to Miss S. Harries. *Fourth* (£1) to Miss P. Crump.

Section E.—*First* (£5) to R. Walley. *Second* (£4) to T. Snudden. *Third* (£3) to E. Edge. *Fourth* (£1) to G. J. Ephraim.

Class 155.—Open to Boys and Girls under 18 years.—*First* (£5) to Miss M. Williams. *Second* (£4) to T. C. Olner. *Third* (£3) to W. Stoker. *Fourth* (£1) to Miss M. Rowlands.

Class 156.—Open only to Herdsmen attending Cattle at the 1935 Dairy Show. Withdrawn.

Class 157.—Champion Contest.—Open to Winners of First Prizes in the Sections of Class 154 and Class 155. Also to First Prize Winners at the 1934 Dairy Show of the British Dairy Farmers' Association. Champions of any year excepted.—*First* (Cup, Gold Medal and £2) to Miss M. Williams *Second* (Silver Medal and £1) to Mrs. D. Wheatley.

COW JUDGING CONTEST.

Class 158.—Open to Teams of Students from Agricultural Colleges, Farm Institutes, and/or County Councils. *Prize* (British Dairy Farmers' Association's Challenge Cup) to Buckinghamshire County Council. Silver Medals to Miss P. Busby, Tom Busby and Arthur W. Culley—Members of winning team. Bronze Medals to G. Eustice, A. H. R. Lilly and E. J. Pendray (Cornwall County Council); Miss C. Brent-Good, Miss M. Hatch and Miss H. Brown (Studley College).

LIST OF JUDGES AT THE 1935 DAIRY SHOW

MILKING TRIALS.

S. Bartlett, National Institute for Research in Dairying, Shinfield.
T. J. Drakeley, Ph.D., M.Sc., F.C.S., F.I.C., 28, Russell Square, W.C.1.
J. Mackintosh, National Institute for Research in Dairying, Shinfield.
E. W. S. Press, B.Sc., A.I.C., F.C.S., 252, Caledonian Road, N.1.

BUTTER TESTS.

R. H. Evans, B.Sc., Barclays Bank Chambers, Pwllheli, North Wales.
J. G. W. Stafford, The Midland Agricultural College, Sutton Bonnington, Loughborough.

BLEDISLOE CHALLENGE TROPHY.

James Howie, Muirside, Holywood, Dumfries.

SUPREME INDIVIDUAL CHAMPIONSHIP CHALLENGE TROPHY.

Walter Wilson, Newby Brow, Kendal, Westmorland.

CATTLE.

Shorthorn (Pedigree).

J. Barnes, Barugh Syke, Wigton, Cumberland.
T. A. Rose, Churchill Heath, Kingham, Oxford.

Shorthorn (Non-Pedigree).

W. J. Wheeler, Mathers Farm, Headington, Oxford.

Lincolnshire Red Shorthorn.

Capt. A. C. Rippin, Thornton Lodge, near Horncastle, Lincs.

British Friesian.

F. W. Gilbert, The Manor, Challaston, Derby.
James Logan, Powis Mains, Stirling.

South Devon.

W. Hunt, Diptford Downs, Diptford, South Brent, South Devon.

Devon.

Robert Bruford, Nerrols, Taunton.

Red Poll.

Major N. Everett, Rushmere, Ipswich.

Welsh Black.

Isaac Jones, Llysfasi Farm Institute, Ruthin.

Ayrshire.

A. Kirkpatrick, Barr, Sanquhar, Dumfriesshire.

Guernsey.

H. H. Laity, Bosistow, Porthcurnow, Cornwall.

Jersey.

B. H. G. Arkwright, Frith, Stalbridge, Dorset.

Kerry and Dexter.

G. Titus Barham, Sudbury Park, Wembley, Middlesex.

GOATS.

Miss C. Chamberlain, Westons, Lyndhurst, Hants.

CHEESE.

The "Lonsdale" Challenge Trophy.

E. Pakeman, Messrs. Etches, Smith, Cox & Co., Derby.

Stilton, Lancashire and Wensleydale.

Miss J. Stubbs, Lancashire C.C. Dairy Schol, Hutton, near Preston.

Cheddar.

Prof. R. H. Leitch, West of Scotland Agricultural College, Auchincruive, Ayr.
J. H. Mackie, Messrs. J. Mackie & Sons, Ltd., Castle Cary, Somerset.
F. H. Salisbury, Messrs. South Western Dairies, Ltd., Sherborne, Dorset.
G. W. Symonds, Messrs. Crump, Way & Sons, Market Street, Wells, Somerset.

Colonial Cheddar.

W. G. Oakey, Messrs. Spear Bros. & Clark, Ltd., 36, Victoria Street, Bristol, 1.

Cheshire.

W. Castle Clark, Cathedral House, Long Millgate, Manchester.
A. Crisp, 102, Dobcroft Road, Sheffield, 7.
A. E. Garlick, Messrs. Barrow's Stores, Ltd., Corporation Street, Birmingham, 2.
J. R. Pedley Millar, South Street, Crewe.

Ayrshire Dunlop.

Alec Todd, British Dairy Institute, The University, Reading.

Factory and Inter-County.

G. Gayton, Messrs. James Howell & Co., Ltd., Wharton Street, Cardiff.

Leicester, Derby, Gloucester and Small Pressed.

J. R. J. Alpass, Messrs. J. Alpass & Co., Ltd., Berkeley, Glos.

Caerphilly.

G. W. Symonds, Messrs. Crump, Way & Sons, Market Street, Wells, Som.

Cream and Unripened Soft.

Miss M. E. Black, Cheshire School of Agriculture, Reaseheath, Nantwich.

COLLECTION OF PRODUCE.

Miss A. Sheppard, British Dairy Institute, The University, Reading.

BACON AND HAMS.

J. J. Plummer, Messrs. Spear Bros., & Clark, Ltd., Broad Plain Bacon Factory, Bristol, 2.

BUTTER.

2-lb. Classes.

Miss A. Colnett, Gloucestershire Education Committee, 2, College Street, Gloucester.
Miss D. V. Dearden, National Institute for Research in Dairying, Shinfield, near Reading.
Mrs. J. G. Stapleton, Owles Hall, near Enfield, Middlesex.
Miss M. M. Trippe, Agricultural Institute, Usk, Mon.

Commercial.

W. E. Bulmer, 9, Custom House Street, Cardiff.
G. Sutherland Thomson, 31, Tooley Street, London, S.E. 1.

Fancy and Ornamental.

Miss M. E. Black, Cheshire School of Agriculture, Reaseheath, Nantwich.
Miss A. O'Brien, Northcliffe House, London, E.C. 4.

Colonial Salted.

L. Classey, Messrs. Aplin & Barrett and the Western Counties Creameries, Ltd., 33, Park Road, Battersea Park, London, S.W. 11.
Major J. G. Stokes, Messrs, Salter & Stokes, Ltd., 19 & 20, King Street, West Smithfield, London, E.C. 1.

BUTTER.—*continued.*

Colonial Unsalted.

H. Ridgway, 7, Clarence Parade, Southsea, Hants.
A. N. Smith, Messrs. Peter Keevil & Sons, Ltd., 370, Edgware Road, London, W. 2.

CREAM.

Miss A. Sheppard, British Dairy Institute, The University, Reading.

BOTTLED FRUITS, VEGETABLES AND JAMS.

Miss E. M. Gunnell, Bradninch Hall, Castle Street, Exeter.

HONEY AND WAX.

L. Bigg-Wither, Colmar's Ash, Wells, Somerset.

INVENTIONS.

W. Burkitt, Grange Hill, Bishop Auckland.
C. N. Goode, The Croft, Bedford Road, Rushden, Northants.
J. Gillard Stapleton, Owles Hall, Crews Hill, Middlesex.
J. Taylor, Heath Farm, Tiptree, Essex.

JUNKET-MAKING CONTESTS.

Miss H. M. Trenchard, East Membury Farm, Membury, Axminster, Devon.

Championship Class.

Mrs. L. R. Mildon, Charlton Cottage, Tiverton, Devon.

BUTTER-MAKING CONTESTS.

Mrs. F. M. Reid, Cherrytrees, Trimley St. Mary, Ipswich.
Mrs. C. Yates, The Venn, Avenbury, Bromyard.

Championship Class.

Miss F. Coward, 11, Greenbank, Ulverston, Lancs.

MILKERS' CONTESTS.

A. G. Andrews, Lilies Farm, Weedon, Aylesbury, Bucks.
H. S. Hobson, Brockton Hall, Eccleshall, Staffs.

COW JUDGING CONTEST.

F. H. Garner, School of Agriculture, Cambridge.
T. A. Rose, Churchill Heath, Kingham, Oxford.

THE OBJECTS OF THE BRITISH DAIRY FARMERS' ASSOCIATION

In 1876 the British Dairy Farmers' Association was founded by a small group of men who realised the need for an Association to stimulate interest in the development of the industry, and to guide its progress along lines suitable to the needs of the milk producer and manufacturer of dairy produce. In 1879 the Association was incorporated under licence of the Board of Trade, and since that date it has expanded its activities in every direction and has become the premier organisation existing for the advancement of the dairy industry.

The original Memorandum of Association states that the objects for which the Association is established are " to improve the dairy stock, the dairy produce and the dairy industry of this country, and to do all such further acts and things as shall be conducive to their interests."

In pursuance of these objects the Association has introduced new schemes and extended its influence in numerous directions, and a brief summary of the chief of these is given below :—

The Dairy Show.

The first Dairy Show was held at the Agricultural Hall, Islington, in 1876. Classes were provided for dairy cattle, goats, cheese, butter, dairy appliances, poultry and pigeons, grain and hops. The total number of entries was 928. This new venture was an immediate success, and Shows have since been held annually with the exception of the years 1916 to 1918. Classes are now provided for the principal breeds of cattle and goats ; varieties of cheese ; butter ; bacon and hams ; bottled fruits ; honey ; poultry and pigeons ; also for butter-making, junket-making and cow-judging. The Milking Trials for cows inaugurated in 1879 and the Butter Tests (1886) have gradually developed in importance and interest and are now recognised as the premier and most complete competitions of their kind in the country. Bacon classes were first provided in 1883 and have been increased and amended to suit current conditions. Competitions for hand milkers are also held during the Show, and the conditions of entry are designed to attract winners of county competitions and to improve the efficiency of milkers throughout the country. More recently cow-judging contests have been organised for teams from Agricultural Colleges, Farm Institutes, &c., and from Young Farmers' Clubs. These competitions constitute attractive features during the later days of the Show. In recent years the total number of entries at the Show has sometimes been over 10,000, and cash prizes and trophies to the approximate value of £6,000 are now offered annually. It may now be claimed that the London Dairy Show is the chief competitive and social event of the year for British Dairy Farmers.

The British Dairy Farmers' Association Journal.

One of the first actions of the Council of the Association was the publication of a Journal containing original articles on subjects of interest to all sections of the industry, and reports of the Dairy Show and other activities of the Association. In the early years the Journal was published in two or four parts each year, but since 1899 it has been issued annually, and in its present form constitutes an indispensable annual addition to the bookshelves of every progressive dairy farmer.

Dairy Education.

(*a*) *The British Dairy Institute.*—When the Association was formed facilities for practical and scientific instruction in cheese-making and butter-making were almost non-existent. The Council realised that the development and adoption of the best methods on the farm would be materially enhanced by the establishment of a well-equipped dairy school, and in 1888 the British Dairy Institute was brought into existence at Aylesbury. In 1896, to provide fuller instruction in the sciences associated with dairy practice, an agreement was made with the University College of Reading (now the University of Reading) whereby the Institute was moved from Aylesbury to Reading and placed under the management of a Committee representing the Association and the University College. In 1910 a new Institute, with better equipment and accommodation for a larger number of students, was erected within the grounds of the College; further additions have been made from time to time, and for many years now the British Dairy Institute has been recognised as the leading centre for dairy education in England and Wales.

(*b*) *The British Dairy Farmers' Association Diplomas and Certificates.*—Since 1887 diplomas and certificates in the science and practice of dairying have been awarded on the results of examinations at the British Dairy Institute. In 1893 it was decided that examinations for certificates of proficiency in the science and practice of cheese-making and butter-making should be held at other centres throughout the country, and at the present time such examinations are conducted at six other dairy schools in different parts of England. By the institution of this scheme, whereby the Association appoints independent examiners and maintains the standard of proficiency, the educational work in dairying has been extended and improved in a highly satisfactory manner.

(c) *The National Dairy Examination Board.*—The development of dairy education in England and Scotland from about 1900 onwards had led to an unnecessary duplication of diplomas in dairying, and in 1928 it was decided that the British Dairy Farmers' Association should cease to award its own diploma and should join with the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland in the formation of the National Dairy Examination Board. This Board, consisting of an equal number of members from the three parent societies, now controls and awards the National Diploma in Dairying (N.D.D.).

Dairy Research.

From time to time since its formation the Association has assisted research work on problems arising in the production and manufacture of dairy produce. When the National Institute for Research in Dairying was created and began to plan its programme of research work after the war, the Association took a keen interest in its development and from time to time gave valuable financial assistance. The co-operation between the Association and the Institute has been facilitated by the presence of a member of the Council on the Board of the Institute and by the presence of one or more members of the staff of the Institute on the Council of the Association. By this co-operation and in other ways, the Association has maintained and developed its interest in research work for the improvement of the methods adopted in the practice of milk production and the manufacture of dairy produce.

Dairy Conferences and Congresses.

The Association has also organised numerous conferences and tours in different parts of the British Isles and abroad in order that subjects of special interest could be studied in detail and first-hand information obtained in new methods. These conferences have also enabled members to combine business with pleasure ; to make new friends and to acquire knowledge of other practices which could not be obtained so easily or economically by private efforts.

The World's Dairy Congress, held in England in 1928, was planned and brought to a successful conclusion mainly through the efforts of the Association. Thereafter the Association was asked by a General Committee representing the Dairy Industry of this country, to act, when necessary, on behalf of the industry as the central agent for Great Britain in connection with future World Dairy Congresses. In this capacity the Association organised the representation of this country at the Congresses held in Denmark in 1931 and in Italy in 1934. The Association is also represented on the committee of the Internationale Federation de Laiterie. This committee meets from time to time to consider dairying subjects of international interest and to decide the venue of future World Congresses.

Medal Scheme.

Soon after its formation the Association encouraged the exhibition of high class dairy stock and produce at provincial shows by offering medals as special awards, and in 1913 the medal scheme was initiated in its present form. This scheme is designed to stimulate improvements in dairy stock and produce throughout the country, by the award of silver and bronze medals through county and local societies under specified conditions. The medals are available for exhibits of dairy cattle, cheese and butter and as special awards in dairy herd, clean milk and milking competitions. Some 70 medals are allocated each year and these are competed for in some 30 counties in England and Wales. This scheme enables the Association to recognise merit and to assist and encourage those engaged in different branches of the production side of the industry in a manner which is widely appreciated.

Dairy Equipment and New Inventions.

Since the first Show classes have been provided for dairy appliances and apparatus and for new inventions of interest to the dairy industry. After several years classes for equipment were discontinued, but space was made available where manufacturers and others could display goods and visitors could inspect them. During recent years the great increase in the use of mechanical equipment in all branches of the industry has made this section of the Show much more important. To meet this need the Council recently rearranged the layout of exhibits in the Halls, and a larger proportion of floor space is now allotted for the display of dairy and poultry appliances and kindred exhibits.

In the new inventions competition the gold, silver and bronze medals awarded by the Association are highly prized. The conditions of entry have recently been revised to require submission of the entries some months before the Show in order that those of a more complex nature might be inspected in actual operation at a farm or dairy. Reports on the practical efficiency of such entries are prepared by the Associations' representatives for consideration by the judges when inspecting the entries at the Show. By this system the risk of giving of awards to ingenious and attractive, but unpractical apparatus and appliances is guarded against, and buyers can be sure that these entries which have obtained the Association's awards are reliable and efficient.

Poultry and Pigeons.

Classes for Poultry and Pigeons were provided at the first Dairy Show in 1877, and have always been a popular feature. As the years passed, this section of the Show greatly increased in size and popularity, and it is now recognised as one of the most important shows of its kind in the country. Over 30 breeds of poultry, ducks, geese and turkeys, and 34 breeds of pigeons were represented at recent shows. The organisation of this section of the Association's work is in the hands of a Poultry and Pigeon Committee, which consists of members of the Council and a few others co-opted to represent definite poultry and pigeon interests.

Other Activities.

In addition to the work briefly described herein, the Council of the Association at its monthly meetings is continually surveying the general progress of the industry and gives special attention to those points where action, either direct or through its various committees, appears to be necessary or desirable. In recent years resolutions concerning the prohibition of preservatives in cream, tariffs on imported dairy produce, the pasteurisation of milk by local authorities and standards for British cheese and for cream have been passed and forwarded to the appropriate Government Departments.

ADVANTAGES OF MEMBERSHIP

Members of the Association receive the following privileges :—

1.—A free pass to all the Association's Dairy Shows, available each day during the Exhibition, with the privilege of admitting free (by ticket) a friend on any one day.

2.—The privilege of participating, at specially low charges, in the Dairy Conferences organised by the Association at home or abroad.

3.—The Exhibition of Live Stock, Dairy Produce, and Utensils (for competition) at a reduced scale of fees to Life Members, and to Annual Members subscribing £1 per annum whose subscription for the past year and current year is paid. A reduction of 10 per cent. is allowed to Standholders whose Membership is of 3 years standing.

4.—A copy (free by post) of the *Journal* of the Association, published annually.

5.—Analyses by the Analytical and Consulting Chemist, at low fees, of samples of milk, cream, butter, cheese, feeding stuffs, water, soil, manures, &c., and advice on dairy matters connected with his department.

6.—Bacteriological examination of dairy produce, &c., at reduced fees.

7.—Examination by the Consulting Pathological Bacteriologist for particular pathogenic or disease-producing organisms.

8.—Professional advice and assistance at a reduced scale of charges in any case of disease among the live stock of the farm.

The Annual Subscription is £1, but Dairy Instructors and Students and full-time Secretaries and Recorders of Milk Recording Societies are admitted on payment of 10s. 6d. per annum. The latter sum entitles Members to all privileges, except the reduced fees for exhibition at the Shows. The Life Membership fee is £15.

The Council have every confidence in appealing to agriculturists of all classes and to dairy farmers in particular, to become members of the Association.

Members' Chemical Privileges

Free Analysis.—Each member, whose subscription for the current year is paid, is entitled to one analysis of a dairy product (paragraphs 1 to 8 below) free of charge. A stamped addressed envelope must be forwarded with the sample for the return of the report of the analysis.

Further analyses will be made by the Association's Consulting Chemist at the following reduced fees :—

	£	s.	d.
1.—MILK (Fresh).			
Estimation of Fat and Total Solids	0	1	0
Estimation of Fat, Casein, Albumen, Sugar, and Ash ...	0	10	0

2.—MILK (Sour).			
Estimation of Fat and Total Solids	0	5	0
3.—SKIMMED MILK.			
Estimation of Fat and Total Solids	0	5	0
4.—CONDENSED MILK.			
Estimation of Fat	0	5	0
Estimation of Fat, Casein, and Solids	0	10	0
Estimation of Cane Sugar (extra)	0	5	0
5.—CREAM.			
Estimation of Fat	0	5	0
Estimation of Fat, Casein, and Solids	0	12	6
Examination for Foreign Fats (extra)	0	10	0
6.—BUTTER.			
Estimation of Water, Fat, Casein, and Ash	0	10	0
Examination for Foreign Fats (extra)	0	10	0
7.—CHEESE.			
Estimation of Water, Fat, Casein, and Ash	0	10	0
Examination for Foreign Fats (extra)	0	10	0
8.—RENNET.			
Examination of Strength	0	5	0
9.—CAKES AND MEALS.			
Estimation of Oil only	0	5	0
Estimation of Oil, Albuminoids, Carbo-hydrates, &c.	0	15	0
10.—GRASS, SILAGE, ROOTS, &c.			
Estimation of Oil, Albuminoids, Carbo-hydrates, &c.	1	10	0
11.—MANURES.			
Estimation of Soluble Phosphoric Acid	0	5	0
Estimation of Soluble and Insoluble Phosphoric Acid	0	7	6
Estimation of Citric Soluble Phosphoric Acid	0	7	6
Estimation of Nitrogen	0	5	0
Estimation of Potash	0	7	6
12.—SOIL.			
Estimation of Lime	0	5	0
Analysis and Report	2	2	0
13.—WATER.			
Analysis for Drinking or Dairy Purposes	1	1	0
14.—CIDER AND FERMENTED DRINKS.			
Estimation of Alcohol	0	7	6
Estimation of Alcohol, Sugar, Acidity, &c.	0	15	0
15.—PRESERVATIVES.			
Examining a Substance for Boracic Acid or Salicylic Acid, &c., for each Substance sought	0	2	6
Estimation of the quantity of Boracic Acid	0	10	6
16.—CONSULTATIONS AND REPORTS ON SUBJECTS, BY ARRANGEMENT.			
For Letter in reply to Enquiry	Free		

NOTE.—The Consulting Chemist will be prepared to quote reduced terms to members requiring a number of analyses at frequent intervals.

Instructions for Taking Fair Samples for Analysis.

Dairy Produce.—Milk should be sent in a well-corked 8-oz. clear bottle. The milk should quite fill the bottle. Butter or cheese, about 8 ounces; the former in a gallipot well tied down.

Soils.—A block of soil about four or five inches square, and nine inches deep, should be sent in a strong box by rail.

Artificial Manures.—Take a handful of manure out of at least half a dozen bags, mix these rapidly and thoroughly, breaking down all lumps. Forward about a pound of the mixture in a tin box, and retain the remainder. Samples of manure should be sent immediately after the delivery of the bulk. All manures should be bought subject to analysis.

Feeding Materials.—Feeding cakes, meals, or grains: about a pound should be sent in a bag or box. Grass and hay: a bundle of a few pounds weight. Silage: a six-inch cubic block, packed closely in a box to keep it compressed.

Waters.—A Winchester quart glass-stoppered bottle should be procured from a druggist, well washed out with the water, then completely filled, the stopper tied securely down, and the bottle packed in a box and sent by rail.

N.B.—In order to prevent disappointment, the Chemist requests that, as far as possible, Members desiring to hold a personal consultation should make an appointment by letter. Between 10 and 4 are the hours most convenient. All communications intended for the Analytical and Consulting Chemist must be addressed direct to DR. T. J. DRAKELEY, D.SC., Ph.D., F.I.C., F.I.R.I., F.C.S., 28, Russell Square, London, W.C. 1.

All samples should be sent by the speediest method possible. They ought not to arrive either on Saturday or Sunday.

Members' Bacteriological Privileges

Samples of dairy produce, &c., submitted for a bacteriological count, or for examination for Bacillus Coli, &c., should be forwarded to DR. T. J. DRAKELEY, D.SC., Ph.D., F.I.C., F.C.S., F.I.R.I., 28, Russell Square, London, W.C. 1.

Bacteriological Examination of "Certified." "Grade A," or "Pasteurised" Milk under the Milk (Special Designations) Order, 1922	10s. 6d.

Examinations for Pathogenic Organisms.

By arrangement with the National Institute for Research in Dairying, Shinfield, near Reading, samples to be examined for the pathogenic organisms mentioned below may be sent to Dr. A. T. R. Mattick (at the above address) who will supply on request the necessary sterile equipment with instructions as to the method of taking and dispatching samples. Members are asked to note that in the examinations for tubercle bacilli the method of animal inoculation will be used. This is the only reliable method, but except in special cases this method necessarily involves a delay of eight weeks before the report can be sent.

A similar delay **may** be involved when samples have to be examined for the presence of Br. abortus.

Examinations will be at the following fees :—

	£	s.	d.
MILK			
Examination for the presence of living tubercle bacilli or Br. abortus	1	1	0
CREAM, BUTTER AND CHEESE.			
Examination for the presence of living tubercle bacilli or Br. abortus	1	10	6

Members' Veterinary Privileges

Members of the Association who require professional assistance in any case of disease among their animals must apply direct to the Consulting Veterinary Surgeon, Professor G. H. Wooldridge, Royal Veterinary College, Camden Town, London, N.W. 1, whose scale of charges is as follows :—

	£	s.	d.
Personal Consultation	0	10	6
Post-mortem Examination and Report	1	1	0
Consultation by Letter	0	5	0
Visit and Report, in case of an outbreak of disease, in addition to personal and travelling expenses, per day	3	3	0

Members' Botanical Privileges.

Members may submit seeds and plants for botanical examination, and the following are a few of the special fees :—

No.	£	s.	d.
1.—A Report on the purity of a sample of seed	0	1	0
2.—A Report on the germinating power of a sample of seed ...	0	1	0
Nos. 1 and 2 together	0	1	6
3.—Determination of the species of any weed or other plant, or of any vegetable parasite, with a report on its habits, and the means for its extermination or prevention	0	1	0
4.—Determination of the species of a collection of natural grasses found in any district, with a report on their habits and pasture value	0	4	0

Instructions for Selecting and Sending Samples.

At least one ounce of grass and other small seeds should be sent, and two ounces of cereals or larger seeds. Grass seeds should be sent at least four weeks, and clover seeds two weeks before they are to be used. In collecting specimens of plants, the whole plant should be taken up and the earth shaken from the roots. If possible the plant should be in flower or fruit. They should be packed in a light box, or in a firm paper parcel. Specimens of diseased plants or of parasites should be forwarded as fresh as possible, either in a bottle, or packed in tinfoil or oil silk. All specimens should be accompanied with a letter specifying the nature of the information required, and stating any local circumstance (soil, situation, &c.) which, in the opinion of the sender, would be likely to throw light on the inquiry.

The proper fee should be sent with the letter concerning the sample to DR. T. J. DRAKELEY, D.SC., Ph.D., F.I.C., F.C.S., F.I.R.I., 28, Russell Square, London, W.C. 1.

BRITISH DAIRY INSTITUTE

THE British Dairy Institute was established at Aylesbury in 1888 by the British Dairy Farmers' Association. In order that students might have an opportunity of combining practical dairying with scientific instruction, the Institute was removed in 1896 to Valpy Street, Reading, and placed under a committee which now represents the British Dairy Farmers' Association and Reading University. The Institute at present occupies buildings on the University site in London Road, Reading (the side entrance to the Institute is in Redlands Road).

The Institute contains milk-receiving, buttermaking and milk-testing rooms ; rooms for the manufacture of pressed, unpressed, and soft cheeses ; and ripening rooms for the different varieties of cheese. It is equipped with the best modern apparatus for the manufacture of dairy produce, including power driven separating and buttermaking plant ; and cold storage, ice cream and pasteurizing plants.

The Institute is open in each year from the last Friday in January until the end of the autumn term (the middle of December). Courses at the Institute are open to men and women above the age of 16 years, and all students admitted are thereby subject to University regulations. Except for recognised courses, students may join at any time which the Institute is open, and for any period not less than a week.

Practical and theoretical instruction is given in all branches of dairying, and may be advanced, elementary, or specialised, according to requirements. The manufacture of hardpressed and soft cheeses is taught throughout the time the Institute is open, but Stilton and other blue-veined varieties are not made until May. Instruction is also given in buttermaking, the management of various types of separators, the handling and care of milk, the preparation of starters, &c.

Lectures and demonstrations are usually given in the afternoons, the mornings being devoted to practical work.

The following courses are open to students :—

B.SC., DAIRYING. Duration of course, three years.

First session of three terms—study for Intermediate Examination.

Two sessions—study for Pass Degree.

During the first year a month must be spent at the British Dairy Institute during the vacation following Summer term, and an additional month's experience obtained in a dairy factory. After qualification for the Pass Degree, distinction may be obtained by a further year of advanced work on a chosen subject, and by passing the final examination Reading University.

Diploma in Dairying.

Duration of course two years, exclusive of six months' practical farm experience. Fees £35 first year, £41 second year.

National Diploma in Dairying (National Diploma Examination Board).

Duration of course two years, exclusive of six months' spent on a dairy farm recognised by the Board. The examination is held in September, and can be taken by students who have followed the Reading University Dairying Diploma course.

Certificate in Dairying.

Duration of course six months (March—September). This course is suitable for students who wish to qualify for the British Dairy Farmers' Association certificates in butter and cheesemaking (the latter requires an additional six months' cheesemaking experience). Fees -21.

Short courses in practical and theoretical dairying are given by arrangement with the British Dairy Institute. Fees, Cheesemaking 25s. per week : Buttermaking 12s. 6d. per week.

The full syllabus of courses, details of residence, regulations, uniform, &c., can be obtained on application to the Secretary, British Dairy Institute, Reading.

British Dairy Farmers' Association

Sixtieth Half-Yearly Report of the Council presented to the Members at the Meeting held at the Dairy Show, Royal Agricultural Hall, Islington, London, N. 1, on Wednesday, October 23rd, 1935.

The Council has, with deep regret, to preface this report by recording the sad loss which it has sustained by the death of Mr. R. Fletcher Hearnshaw, one of its valued members. Mr. Hearnshaw was elected a Life Member of the Association in 1912 and voted to a seat on the Council in 1926. He was a prominent member of the Poultry and Pigeon Committee and a keen and successful exhibitor of poultry at the Dairy Show at which function he had upon several occasions filled the role of judge. His interest in the Association's activities will be greatly missed especially on the Poultry Committee.

DAIRY SHOW.

The continued popularity of the Dairy Show, as evinced by the magnitude of the exhibition now in progress is a source of extreme satisfaction. It is the constant aim of the Council to promote the welfare of the dairy industry, and it is gratifying to report that all the departments of the Show are again well supported, a pleasing feature being the number of English creameries which have entered in the commercial butter classes.

The following two classes have been added this year, each of which has been well supported :—

(*a*) Small pressed cheese—4 cheeses not exceeding 2 lbs. each.

(*b*) Sterilizing equipment consisting of boiler and chest for the steam sterilizing of milk utensils on the farm.

It is most pleasing to report that the entries received in two of the bacon pig classes constitute records, while the entry in a third class is the highest since 1924.

A comparative statement giving the entries for the past 12 years forms part of this report.

The increasing pressure upon the available space at the Royal Agricultural Hall annually gives your Council grave concern. Whilst realising that its first duty must be to the competitive side of the Show—its foundation stone—the increasing demands for space in the non-competitive section cannot be ignored. Thus, by re-arrangement additional space for cattle has been gained in the Gilbey Hall, and for poultry appliances in the Princes Gallery.

Milk Bar.

An innovation is made this year in the arrangement for the sale of Milk. The Bar is designed as a model equipment for the sale of the new Milk Shakes and Hot Milk Drinks. Milk Shakes in various flavours such as chocolate, chocolate malted milk, coffee, pineapple, raspberry, banana, lemon, strawberry, lime, cherry, creme-de-menthe, etc., can be obtained.

The Bar affords an opportunity for interested persons to see at first hand the equipment used and the methods adopted for quick service, and provision is made for enquirers to receive advice on the spot.

President.

The Council is most pleased to inform the Members that H.R.H. The Duke of Kent has graciously honoured the Association by kindly allowing his name to be submitted as President for 1936. and your vote will be asked in support of the election of His Royal Highness.

Vice-Presidents.

The following list of Vice-Presidents has been prepared and your approval will be sought for their election :—

The Earl of Dartmouth, P.C., K.C.B.
The Earl of Iveagh, C.B., C.M.G.
The Earl of Lonsdale, K.G., G.C.V.O.
The Viscount Bledisloe, P.C., G.C.M.G., K.B.E.
Major The Lord O'Hagan.
The Lord Desborough, K.G., G.C.V.O.
The Lord Strachie, P.C.
The Lord Daresbury, C.V.O.
The Lord Rowallan.
S. Palgrave Page, Esq., J.P.
G. Titus Barham, Esq.
John Evens, Esq., J.P.

Council.

In accordance with the Articles of Association the following members retire this year, all of whom have been nominated and seconded for re-election :—

J. F. Codd, Sussex.
S. Edwards, Glamorganshire.
John Evens, Junr., Lincolnshire.
J. T. H. Farmer, Buckinghamshire.
W. H. Hobson, Cheshire.
W. F. Jessop, Buckinghamshire.
H. S. Holmes Pegler, Surrey.
W. Rice, Essex.
J. Sadler, Cheshire.
G. C. Sankey, Sussex.
P. Stanbury, Devon.
J. G. Stapleton, Middlesex.

The following new candidates have been duly proposed and seconded :—

C. N. Goode (Farmer), Northamptonshire. Proposed by S. Palgrave Page, seconded by Sir Herbert Sharp, Bart.

T. Martlew (Farmer), Hertfordshire. Proposed by J. Sadler, seconded by Lord Daresbury.

Miss D. A. J. Smith (Farmer), Devon. Proposed by George Wills, seconded by Walter Hunt.

AUDITORS.

Mr. Herbert J. Page of Messrs. Kemp, Chatteris, Nichols, Sendall & Co., will be proposed as the Association's Chartered Accountant with Messrs. P. Hay, W. E. Manchester and R. Wallace as Hon. Auditors.

MEMBERSHIP.

Considering the great interest taken in the Dairy Show it seems a little strange that more of its exhibitors do not avail themselves of the privileges of membership. Apart from substantial reductions in entry fees, free admission to the Show, participation in Summer Conferences and excursions, &c., increased membership means increased power, extended activities and even more consideration being given to the Association's representations on the various questions on which it is from time to time consulted by the Ministries. The Council therefore appeal to present members to bring before their friends the advantages of Membership. In strengthening the Association they are strengthening themselves by securing benefits to the industry as a whole.

CONFERENCE.

An extremely interesting Conference was held in Switzerland during early June, the members enjoying a ten days sojourn in a delightful country, receiving hospitality on all sides whilst visiting centres of a dairying character. By making all necessary arrangements direct from its own Office the Association was enabled to quote for the tour a figure which, considering all it included, was voted by the participants as extremely economic. The programme, entirely free from that rush and hurry which has sometimes marred similar Conferences, worked with clock-like precision and afforded ample time for rest or the following of individual inclinations. The members were loud in their praises of the whole tour, expressing the hope that another would be arranged for 1936. Finland or Norway has been suggested. Should any member however have a preference for any particular country the Council would appreciate an intimation to the Secretary in order that some idea might be gained of the measure of support likely to be accorded.

A Special report has been prepared which should prove of value to all Members and will be distributed shortly.

THE FOLLOWING TABLE GIVES COMPARATIVE DETAILS OF THE ENTRIES AT THE DAIRY SHOW WITH THOSE OF THE PAST TWELVE YEARS.

	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
Cattle	539	473	470	449	449	366	356	390	382	344	348	427	421
Milking and Butter Tests	772	718	700	693	737	563	547	628	612	589	581	678	664
Goats	67	72	48	78	68	53	90	80	105	141	120	106	84
Poultry	4,685	4,498	4,355	4,352	3,888	3,642	3,432	3,395	3,314	3,037	2,933	3,016	3,103
Pigeons	3,115	3,027	3,094	3,180	3,098	3,083	2,959	2,655	2,616	2,396	2,611	2,471	2,559
Cheese	488	486	459	489	688	664	519	596	578	462	441	627	633
Bacon and Hams ...	89	113	95	95	105	103	95	120	64	99	76	81	100
Butter	401	483	420	430	488	476	391	413	438	354	297	279	308
Cream	33	30	47	30	43	47	43	64	59	42	37	47	54
Honey, &c.	92	102	53	65	56	88	111	95	85	76	116	152	114
Bottled Fruits and Vegetables	53	65	33	56	80	34	116	87	96	61	119	116	79
New and Improved Inventions	37	37	54	50	57	13	30	20	23	20	25	32	41
Roots	190	283	269	271	242	165	31	12	Noclass	Noclass	Noclass	Noclass	Noclass
Butter Making Contests	129	154	130	131	155	124	152	152	143	124	128	146	167
Milkers' Contests ...	43	56	51	47	61	44	41	70	71	67	68	84	81
Junket-making Contests	23	33	27	28	38	36	31	42	40	40	50	42	45
Collection of Colonial Produce	3	1	2	—	—	—	—	—	Noclass	Noclass	Noclass	Noclass	Noclass
Cow-Judging Contest ...	7	4	8	10	9	7	10	7	4	7	8	15	8
Collection of Produce ...	—	8	18	9	9	7	33	14	19	9	9	16	11
	10,766	10,643	10,333	10,464	10,271	9,515	8,987	8,840	8,649	7,841	7,967	8,335	8,472

SIXTIETH ANNUAL REPORT OF THE COUNCIL

for the Year ended 31st December, 1935,

Presented to the General Meeting of Members on Wednesday, March 4th, 1936

In presenting this 60th Annual Report, your Council has the painful duty of placing on record the sad death of Mr. William Burkitt, M.Sc., who had been a member of the Association since 1906. While a Memoir, with photograph, will appear in the Association's Journal, Vol. XLVIII., your Council desires to take this opportunity of expressing its most sincere appreciation of Mr. Burkitt's valuable services not only on behalf of the Association but in the interest of the dairying industry. His sound advice and untiring efforts will be sadly missed by members of the Association and particularly those of your Council with whom he laboured for so many years.

It is also, with much sorrow, your Council has to refer to the death of Dr. C. H. Tattersall, who had been connected with the Association since 1906. Although not a Member of your Council he had, for many years been a valued member of the Poultry and Pigeon Committee. Dr. Tattersall was a keen and successful exhibitor of Pigeons at the Dairy Show over a long period and his valuable assistance and advice will be sadly missed.

MEMBERSHIP.

During the year 127 new members have been enrolled but unfortunately 111 names have been removed from the register owing to deaths and resignations. The total membership at the close of the year was 1,845, of which 1,704 were annual, 133 life and 8 honorary members together with 14 affiliated Societies. While this total shows an increase of 16 members your Council once again expresses the sincere hope that members will interest their friends in the Association's activities and secure their support in the form of membership.

COUNCIL.

The constitution of the Council has undergone three changes during 1935. Owing to the lamented deaths of Mr. W. Burkitt and Mr. R. Fletcher Hearnshaw, Mr. H. G. Robinson and Mr. T. Martlew were elected to fill the vacancies, while Mr. C. N. Goode was voted to a seat at the annual election during the Dairy Show.

THE DAIRY SHOW.

The 57th Annual Dairy Show held at the Royal Agricultural Hall, London, on October 22nd to 25th, maintained its popularity in all respects. The Show was well supported by all sections of the dairying industry and all available stand space for non-competitive exhibits was allocated. Visitors to the Show, irrespective of members and exhibitors reached the record figure of 49,046 which was 2,334 in excess of 1934. As the various sections of the Dairy Show will be fully reported upon in Journal, Vol. XLVIII. it is unnecessary to make further comment in this report.

EXAMINATIONS.

During the past year examinations have been held at the following five centres :—

Agricultural Institute, Usk, Monmouthshire.
British Dairy Institute, Reading, Berkshire.
Farm Institute, Sparsholt, Hampshire.
Somerset Farm Institute, Cannington, Somerset.
Studley College, Studley, Warwickshire.

and 50 certificates for buttermaking and 32 for cheesemaking were awarded.

The 40th annual examination for the National Diploma in Dairying took place in September at the University and British Dairy Institute, Reading, for English and Welsh students, and at the Dairy School for Scotland, Auchincruive, for Scottish students. At the English centre, out of the 54 candidates who presented themselves 26 were awarded the Diploma, and at the Scottish centre 23 candidates were successful out of 46 who were examined. No candidate at either centre attained the Honours standard.

MEDAL SCHEME.

Under the above scheme the following medals were awarded during 1935 :—

	Silver.	Bronze.
Dairy Cattle	10	2
Produce	4	7
Buttermaking	5	1
Milkers' Contests	4	3
Cow Judging Contests	1	2
Poultry Judging Contests	1	2
Totals ...	25	17

DAIRY CONFERENCE.

In view of the success which attended the Conference held in Switzerland last June—a full report of which has been sent to all Members—your Council has agreed to arrange a tour in Belgium commencing on May 30th, for about nine days. A programme is in course of preparation and will be issued at the earliest moment. It is sincerely hoped that a sufficient number of applications will be received to make the project possible.

Importation of Breeding Cattle.

The above question has received the careful consideration of your Council, and the following resolution was forwarded to the Ministry of Agriculture and Fisheries :—

> "The Council of the British Dairy Farmers' Association views, with alarm, the increasing number of breeding cattle imported into this country without undergoing, on landing, the Tuberculin Test, the Agglutination Test for Contagious Abortion, and further, without any guarantee that such cattle are free from Contagious Mammitis and calls upon the Authorities to prohibit the importation of such cattle which, in its opinion, constitutes a grave danger to the live-stock breeding industry of Great Britain by the spread of the diseases above mentioned."

Following a deputation which waited upon the Ministry when several members strongly expressed their views upon the subject and made various suggestions regarding more stringent restrictions being placed upon the importation of breeding cattle into Great Britain, the following reply was received :—

> "The representations and suggestions submitted by the Deputation from your Association which was received by Lord de la Warr on the 25th July last, have been fully considered : but the Minister has come to the conclusion that there are not sufficient grounds for the imposition of more stringent restrictions than those already in force to prevent the introduction of disease. The Minister will, however, continue to watch the situation carefully and will not hesitate to take action if necessary. In the circumstances, he does not think that it would be useful to appoint a Committee on the subject."

Attested Herds Scheme and Accredited Producers' Scheme.

These schemes have been fully considered and the following resolution was sent to the Ministry of Agriculture and Fisheries, Ministry of Health and the Milk Marketing Board :—

> "The Council of the British Dairy Farmers' Association welcomes the introduction of the Attested Herds Scheme and the Accredited Producers Scheme on general grounds, but deplores the fact that there is no place in either Scheme for the large number of herd owners who have been progressively eradicating tuberculosis from their herds, and requests the Ministry of Agriculture, the Ministry of Health and the Milk

Marketing Board to amend these Schemes so that they shall provide a helpful and constructive policy for the eradication of bovine tuberculosis."

CHINESE EGGS.

The question of the large importation into Great Britain of Chinese Eggs has received the attention of your Council and the following resolution was forwarded to the Ministry of Agriculture and Fisheries :—

> " The Council of the British Dairy Farmers' Association views, with grave alarm, the large increase in the number of Chinese Eggs imported into this country and urges His Majesty's Government to prohibit any further imports."

DRAFT MILK SPECIAL DESIGNATION ORDER, 1935.

The above order has been very carefully considered and the following observations forwarded to the Ministry of Health :—

1. **Certified Milk.** " That the bacterial count of 200,000 bacteria per millilitre is too high and recommend that the count should not exceed 50,000 per millilitre and that in addition the present coli requirements for certified milk, *i.e.*, coliform organisms absent in 1/10th millilitre should be maintained. It is not desired however that this figure should be accepted as final but be subject to revision from time to time in the light of experience to be acquired. It is also considered desirable that samples be taken more frequently and the general conditions enforced more strictly than has hitherto been the case. Also that the first para. of the third schedule (A.1.(*a*)) should be amended to require that the animal introduced into a certified herd from other than another certified herd or an attested herd should be kept separate from the rest of the herd until it has passed the second tuberculin test at the end of the two months. Where certified milk is bottled on the farm it is recommended that it should be permissible to label it " A.M." or " P.M." according to the milking period.
2. **Pasteurization of Certified Milk.** This was regarded as a retrograde and dangerous step.
3. **Producers' Licenses.** That steps should be taken to ensure uniformity in administration in the various Counties and to this end it is suggested that a Central Advisory Body be maintained at the Ministry of Health. As a further step towards uniformity it is suggested that a post graduate course be instituted for veterinary surgeons with a view to their specialising in the proper interpretation of the tests they will be called upon to carry out under the order.
4. The Council view with favour the abolition of the designation Grade " A."

5. **Standard Milk.** It is urged that the milk to be produced under this designation should be available to the public under such name. Also that the hygienic quality of this milk should not be lower than that previously required for Grade " A."

6. Finally, the Council recommend that in all instances of milk being treated by heat (other than by an authorised pasteurising plant) it should be so labelled in order that the public may be aware of the treatment the milk has received."

AMENDED TUBERCULOSIS (ATTESTED HERDS) SCHEME.

Your Council considered a letter from the Ministry of Agriculture and Fisheries relative to the above Scheme, and replied as under :—

> " The Council has now had the opportunity of considering this matter and is of opinion that the Draft Tuberculosis (Attested Herds) Scheme is in its present form of no interest or value to the average milk producer : even to those who have taken the preliminary steps towards the eradication, the financial assistance and inducements held out are insufficient to induce such herd owners to support the scheme.
>
> Representatives of the Association will be glad to attend to discuss the scheme should the Ministry wish to meet them."

By order of the Council,

FRED J. BULL,
Secretary.

28, RUSSELL SQUARE,
LONDON, W.C. 1.

THE BRITISH DAIRY

FINANCIAL

GENERAL INCOME AND EXPENDITURE

WITH COMPARATIVE

Dr.

EXPENDITURE.	1935. £	s.	d.	1934. £	s.	d.
Education, including Examinations, Medal Scheme, Conference (and 1934 only, Inter-County Clean Milk Competition)	301	12	11	403	16	5
Journal	679	9	3	549	15	9
Bank Charges, including cost of cheque books ...	21	15	7	18	9	1
Rent	240	0	0	240	0	0
Prizes to Exhibitors	3,659	10	5	3,671	16	6
Dairy Show—Hire of Hall, Fittings, Postage and Sundry Expenses	6,254	12	2	6,351	16	9
Working Dairy (and 1934 only, Milk Buffet) ...	536	10	4	655	15	7
Catalogues	840	2	1	812	4	0
Salaries	1,171	0	0	1,154	15	0
Wages and Labour	1,254	10	11	1,248	8	5
Printing, Stationery, Postage, and Sundry Office Expenses	360	18	1	260	15	3
Railway Fares for attendance at Council Meetings	185	11	5	148	16	7
Auditors' Fees, Law Charges, and Officers' Retaining Fees	181	9	3	134	8	0
Depreciation of Furniture	201	6	10	242	5	9
British Dairy Institute—Contribution towards estimated loss to 31st December, 1934 ...		—		125	0	0
Loss on redemption of Investments	64	9	0		—	
Donations—						
Royal Agricultural Benevolent Institution...	10	10	0	52	10	0
International Dairy Federation	30	5	0	15	15	0
Central Chamber of Agriculture	5	0	0	5	0	0
National Pigeon Association	1	1	0	1	1	0
National Federation of Young Farmers' Clubs		—		10	10	0
Rothamstead Experimental Station ...		—		25	0	0
Superannuation	117	17	8	104	18	6
Stands at Agricultural Shows		—		31	13	4
General Analyses	22	16	9	23	2	0
World's Dairy Congress—Delegates expenses ...		—		210	0	9
BALANCE, being excess of Income over Expenditure	4,399	5	0	3,399	1	2
	£20,539	13	8	£19,896	14	10

FARMERS' ASSOCIATION

STATEMENTS

ACCOUNT for the Year ended December 31st, 1935

STATEMENT FOR 1934.

Cr.

INCOME.		1935. £	s.	d.	1934. £	s.	d.
Subscriptions		1,482	18	0	1,455	5	6
Donations		3	3	0	3	3	0
Examinations		66	15	7	89	7	9
Journal		96	9	5	94	10	5
Contributions to Prize Fund		336	6	0	330	16	0
Entry Fees, Competitive and Non-Competitive...		11,113	15	11	10,921	11	9
Profit on Sales of Exhibits, including Commission		86	2	7	71	6	6
Admission Money		4,179	2	10	3,952	19	3
Sales in Working Dairy and Milk Buffet ...		882	18	1	877	15	2
Catalogues Sales and Advertisements		721	1	11	769	3	5
Interest on Investments		1,443	1	3	1,303	2	3
Interest on Bank Deposit		16	6	2	16	2	10
Hire of Council Room		13	13	0	11	11	0
BRITISH DAIRY INSTITUTE, READING, RESERVE NOT REQUIRED.							
Reserve for estimated loss at 31.12.34	£125 0 0						
Deduct amount paid during 1935	27 0 1						
		97	19	11			
		£20,539	13	8	£19,896	14	10

Dr. STATEMENT OF ASSETS AND LIABILITIES, December 31st, 1935. Cr.

LIABILITIES.	£ s. d.	£ s. d.
Sundry Creditors		129 7 8
World's Dairy Congress, 1928 ...		8 19 4
Surplus of Assets over Liabilities at 31st December, 1934	34,705 18 10	
Add Excess of Income over Expenditure, 1935 ...	4,399 5 0	
		39,105 3 10
		£39,343 10 10

ASSETS.	£ s. d.	£ s. d.
Investments at Cost Price—		
£375 Southern Railway 4% Debenture Stock	265 0 0	
£375 London, Midland & Scottish Rly. 4% Debenture Stock ...	280 0 0	
£500 India 3% Stock	265 0 0	
£2,000 3½% War Stock	1,701 9 0	
£1,500 L.C.C. 3% Stock	783 17 0	
£400 Hertfordshire 6% Stock ...	389 1 0	
£4,000 Metropolitan Water Board "B" 3% Stock	3,005 7 0	
£2,000 Commonwealth of Australia 3¾% Loan, 1946/49	1,989 19 8	
£2,000 Commonwealth of Australia 3½%Registered Stock 1954/59	1,930 4 0	
£12,000 Conversion Loan 3½% ...	9,597 19 6	
£5,000 New Zealand 3% Inscribed Stock, 1952/55	4,875 6 0	
£7,500 Consolidated 2½% Stock ...	4,888 12 8	
£3,000 Local 3% Loan	2,817 16 0	
£3,000 Agricultural Mortgage Cpn. 4½% Debenture Stock 1961/91	3,551 10 3	
		*36,341 2 1
Furniture and Appliances:		
Value at 31st December, 1934, plus additions at cost	984 19 10	
Less Depreciation	201 6 10	
		783 13 0
British Dairy Institute, Reading Capital Contribution		825 0 0
Sundry Debtors 1935		100 2 0
Cash at Bank and in hand		1,193 13 9
		£39,243 10 10

*The value, according to Market Price, of these Investments at 31st December, 1935, was £43,912.

REPORT OF THE AUDITORS TO THE MEMBERS OF THE BRITISH DAIRY FARMERS' ASSOCIATION.

We have audited the foregoing Statement of Assets and Liabilities and the Income and Expenditure Account with the books and accounts of the Association. We have received all the information and explanations we have required. In our opinion such Statement of Assets and Liabilities is a full and fair statement containing the particulars required by the Regulations of the Association, and properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs according to the information and explanations we have received and as shown by the Books.

21st January, 1936.

(Signed) HERBERT J. PAGE, *Chartered Accountant.*
PERCY T. HAY }
W. E. MANCHESTER } *Hon. Auditors.*
ROBERT WALLACE }

The British Dairy Farmers' Association

Particulars of Medal Distribution Scheme.

The Council of the British Dairy Farmers' Association is prepared to consider applications from Educational Centres and Approved Societies in the United Kingdom for their Silver and Bronze Medals to be awarded in connection with dairying and dairy farming under the following conditions, viz.:—

1. All applications must be made on the official form and must clearly state the object for which the Medal or Medals are required.
2. Only one application from any Institution or Society can be considered in any one year.
3. The application must be repeated annually if medals are again required.
4. A copy of the draft prize list, showing the proposed conditions for the award of the Medal, should accompany the application, and the offer of a Medal cannot be confirmed until the prize list has been approved by the British Dairy Farmers' Association.
5. The British Dairy Farmers' Association stipulates that no entry fee shall be charged in respect of these Medals, which are offered as Special Extra Prizes.
6. Notification of the award, with the winner's full name and address, together with a marked catalogue of the Show, to be forwarded to the Secretary, British Dairy Farmers' Association, 28, Russell Square, London, W.C.1, within 14 days of the award being made.
7. A person may not receive more than one Medal under this Scheme for the same subject or exhibit during any one year.
8. Medals will not be granted in competitions where cups and/or trophies are also offered.
9. A medal will not be awarded in any class where there are less than six exhibits present.
10. This Scheme came into operation on January 1st, 1934, and takes the place of all previous Schemes.

Dairy Produce and Buttermaking.—The B.D.F.A. will consider applications on behalf of County or similar Shows for a Silver Medal as a Championship award.

The B.D.F.A. Bronze Medals may be available for local Shows and in each case shall only be awarded to the best exhibit or competitor.

Cattle.—The B.D.F.A. Silver Medals will only be awarded at County and similar Shows to cows or heifers which are milk-recorded under the Ministry of Agriculture Scheme.

Such Medals shall only be awarded to animals which have produced not less than the undermentioned minimum milk yields either during a lactation period of 315 days or for any one completed year of a recognised Milk Recording Society:—

Dairy Shorthorns, Lincoln Red Shorthorns, Blue Albions, British Friesians, Red Polls, Ayrshires, South Devons, Guernseys and Jerseys, 8,000 lbs. at 5 years old or over, or 6,000 lbs. at under 5 years.

Devons, Kerries and Welsh Blacks, 7,000 lbs. at 5 years old or over, or 5,500 lbs. at under 5 years.

Dexters, 5,000 lbs. at 5 years old or over, or 3,750 lbs. at under 5 years.

The B.D.F.A. Bronze Medals for cattle will be available only at Local Shows under similar conditions.

The B.D.F.A. Silver Medals will only be awarded to Bulls out of recorded cows whose milk records comply with the yields stated above.

The official Form A.56/TL., obtainable from Milk Recording Societies, giving the milk yield of the animal concerned, must be forwarded with the notification of the award. In the case of a Bull, the record of its dam is required.

DAIRY HERDS.—The B.D.F.A. will consider applications for Silver or Bronze Medals by the authorities organising dairy herd competitions.

Such medals shall only be awarded to herds which are recorded under the Ministry of Agriculture's Milk Recording Scheme.

CLEAN MILK COMPETITIONS.—The Gold Medal of the British Dairy Farmers' Association will be awarded to the leading competitor in each of the advisory provinces as arranged by the Ministry of Agriculture and Fisheries, provided the competition is recognised by the Ministry.

MILKING COMPETITIONS.—The B.D.F.A. will consider applications for Silver or Bronze Medals by the authorities organising County and District Milking Competitions.

Such Medals shall only be awarded where the milking competitions are judged in conformity with the scale of points issued by the Ministry of Agriculture, or as used at the Dairy Show.

OTHER COMPETITIONS.—The B.D.F.A. will consider applications for medals from properly constituted authorities for such other competitions as may be designed to lead to improvements in the practice of Dairy Farming or Dairying.

In the event of any dispute as to the interpretation of these Rules the Council of the British Dairy Farmers' Association reserves full power of decision, and in the event of the Medal not being awarded in accordance with the above Rules and Conditions, the Council reserves the right to withhold the Medal altogether.

MEDALS AWARDED DURING 1935

Applicant.	Show held at	Date.	Medal.	Winner and Object.
Yeovil Shorthorn Bull Society	Yeovil	Feb. 15 ...	Bronze ...	A. & A. L. Gravenor, for Shorthorn Bull " Huxham White Coral," as best dairy bull out of a milk recorded cow.
Devon County Agricultural Association ...	Barnstaple ...	May 22-24 ...	Silver ...	Miss W. M. Sweetland, Champion Buttermaker.
,, ,, ,, ...	,, ...	,, ...	Silver ...	Miss D. E. Oatway, Champion Milker.
Shropshire & West Midland Agricultural Society	Shrewsbury ...	May 29 & 30 ...	Silver ...	Capt. W. M. Harrop, for Shorthorn Cow " Gwersyllt Kirklevington," as best milk recorded dairy cow or heifer.
Cambridgeshire & Isle of Ely Agricultural Society.	March	June 4	Silver ...	H. Dolby, for British Friesian Cow " Wimblington Marigold," as best milk recorded cow or heifer.
Monmouthshire County Council	Chepstow	June 4 & 5 ...	Silver ...	Wilfred Lewis, First in Milkers' Contest for men.
,, ,, ,, ...	,, ...	,, ...	Silver ...	Edith Cook, First in Milkers' Contest for women.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	M. Reese, First in Milkers' Contest for competitors under 18 years.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	Leslie Powell, First in Milkers' Contest for competitors under 16 years.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	Ernest Bradley, First in Milkers' Contest for Students of the Monmouthshire Agricultural Institute.
Staffordshire Agricultural Society	Stafford	June 5	Silver ...	Lt.-Col. E. C. Atkins, for Shorthorn Cow " Sizergh Queen," as best milk recorded dairy cow or heifer.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	Miss C. Woolley, for best exhibit of butter.
Yealmpton Agricultural Association	Yealmpton ...	,, ...	Bronze ...	Mrs. E. B. Beer, for butter as best exhibit of butter or cream.
Royal Counties Agricultural Society ...	Weymouth ...	June 5-8 ...	Silver ...	Miss F. Lewis, Champion Buttermaker.
Suffolk Agricultural Association	Halesworth ...	June 6 & 7 ...	Silver ...	Miss D. Clark, Champion Buttermaker.
Derbyshire Agricultural Society	Ilkeston	June 11 ...	Silver ...	Lt.-Col. E. C. Atkins, for Shorthorn Cow " Baskerville Fashion 2nd," as best milk recorded dairy cow or heifer.
Three Counties Agricultural Society	Gloucester ...	June 11-13 ...	Silver ...	Miss G. Matthews, Champion Buttermaker.
Royal Cornwall Agricultural Association ...	Newquay	June 12 & 13 ...	Silver ...	J. Rossiter, for South Devon Cow " Cholwells Gretna," as the milk recorded cow gaining highest points in Milking Trials and Butter Tests.
,, ,, ,, ,, ...	,, ...	,, ...	Silver ...	Miss P. Varker, for best exhibit of butter.
Lincolnshire Agricultural Society	Grantham ...	June 19-21 ...	Silver ...	John Evens & Son, for Lincolnshire Red Shorthorn Cow " Burton Nancy 25th," as best milk recorded dairy cow or heifer.
Yorkshire Agricultural Society	Sheffield	July 10-12 ...	Silver ...	Mrs. J. Bolderston, Champion Buttermaker.
Bedfordshire Agricultural Society	Ampthill	July 18	Silver ...	G. O. Archer, for Shorthorn Cow, " Littlebarford Pearl 5th," as best milk recorded dairy cow or heifer.
,, ,, ,, ...	,, ...	,, ...	Silver ...	Capt. Hon. E. A. FitzRoy, for Shorthorn Bull " Foxhill Magician," as best dairy bull out of a milk recorded cow.
Royal Welsh Agricultural Society	Haverfordwest ...	July 25-27 ...	Silver ...	Miss S. Harries, Champion Milker.
Royal Lancashire Agricultural Society ...	Burnley	Aug. 1-5 ...	Silver ...	Miss M. M. Varker, best exhibit of butter.
Berkeley Hunt Agricultural Society	Berkeley	Aug. 5	Bronze ...	Mrs. W. Haine, best exhibit of cheese.
,, ,, ,, ,, ...	,, ...	,, ...	Bronze ...	Miss E. M. Pritchard, best exhibit of butter.
Harrogate Agricultural Society	Harrogate ...	,, ...	Bronze ...	Mrs. J. Houseman, best exhibit of butter.
North East Somerset Farmers' Club ...	Brislington ...	Aug. 17... ...	Bronze ...	W. H. Collins, best exhibit of cheese.
Penistone Agricultural Society	Penistone	Aug. 22... ...	Bronze ...	Miss A. M. Ward, best exhibit of butter.
Devynock Agricultural Society	Sennybridge ...	Aug. 31... ...	Bronze ...	Miss E. Williams, Champion Buttermaker.

MEDALS AWARDED DURING 1935—*continued.*

Applicant.	Show held at	Date.	Medal.	Winner and Object.
Westmorland & Kendal Agricultural Society	Kendal	Sept. 12... ...	Silver ...	H. Mather, for Shorthorn bull " Calcaria Marksman," as best dairy bull out of a milk recorded cow.
Frome District Agricultural Society	Frome	Sept. 25... ...	Bronze ...	John Day, for Shorthorn cow " Huxham Duchess Rose 7th," as best milk recorded dairy cow or heifer.
East Devon Milk Recording Society	East Devon ...	Oct 1, 1934-Sept. 30, 1935	Silver ...	Lord Poltimore, for Guernsey Cow, " Roundelay of Casrouge," as the milk recorded cow giving highest yield of butter-fat.
National Federation of Young Farmers' Clubs	Dairy Show London	Oct. 24	Silver ...	W. R. Thomas, First in Cow Judging Contest.
,, ,, ,, ,, ,,		,, ...	Bronze ...	J. C. Atkinson, Second in Cow Judging Contest.
,, ,, ,, ,, ,,	,,	,, ...	Bronze ...	T. H. Vickers, Third in Cow Judging Contest.
,, ,, ,, ,, ,,	,,	Oct. 25	Silver ...	A. Munlay, First in Poultry Judging Contest.
,, ,, ,, ,, ,,	,,	,, ...	Bronze ...	Enid Carn, Second in Poultry Judging Contest.
,, ,, ,, ,, ,,	,,	,, ...	Bronze ...	G. Weller, Third in Poultry Judging Contest.
LancashireCheese & Dairy Show Association	Preston	Oct. 29... ...	Silver ...	T. Lund, best exhibit of cheese.
Gloucestershire Root, Fruit & Grain Society	Gloucester... ...	Nov. 9	Silver ...	Mrs. N. H. Barton, best exhibit of butter.

British Dairy Farmers' Association

PRIZE ESSAY

ON A

DAIRYING SUBJECT.

The Council offers a Prize of £15 and the B.D.F.A. Silver Medal for an Essay upon any practical or scientific subject relating to Dairy Farming or Dairying, conditionally upon sufficient merit being shown.

Preference will be given to one based on the original work and experience of the writer. Where the work of others is relied upon, full references must be given, either in footnotes or by numbers (1), (2), &c., with a list of authorities at the end.

The Essay should not exceed 5,000 words, and must be received by the undersigned on or before 1st October.

An Essay must be sent in a sealed envelope, bearing a *nom de plume*, and in another sealed small envelope, also bearing the *nom de plume*, the Author must insert his name and address.

The Prize Essay will be the property of the Association. Others will be returned to their respective Authors, but the Association reserves the right to retain Essays on subjects suitable for inclusion in the Annual Journal, which will be paid for at 10s. 6d. per Journal page.

FRED. J. BULL,
Secretary,
28, Russell Square, London, W.C.1.

The British Dairy Farmers' Association

Suggestions to Farmers as to how best to ensure THE CLEANLINESS OF THE MILK SUPPLY.

The attainment of a clean milk supply is largely dependent upon the action of Dairy Farmers themselves.

Every Dairy Farmer is financially interested in this question. Public doubt of the cleanliness of the milk supply means reduced demand for fresh milk. Public confidence means increased use of milk as food and drink—consequently a larger demand.

Any Dairy Farmer by want of reasonable care can jeopardise the reputation of the whole industry and thus destroy the good work of those whose efforts are to increase the consumption of milk.

The co-operation of every producer is confidently requested.

The main points to be emphasised are :—

(1) That consumers are entitled to receive milk which is clean and wholesome.

(2) That the precautions necessary to produce clean, wholesome milk are easy, simple and inexpensive.

Briefly these precautions are :—

To keep the milk sheds and cows as clean as possible.

To clean the udders and hindquarters and, before milking, wipe the udders with a clean damp cloth, rinsed after every cow.

To use a partly covered milking pail.

To see that milkers milk with clean hands.

To strain the milk through a strainer fitted with a suitable filtering medium which should be sterilised before each milking.

To empty water from cooler before washing.

To rinse utensils in cold water. Thoroughly wash in hot water and soda and scald in boiling water or, preferably, sterilise with steam or by boiling in water.

To stand utensils upside down to drain after cleaning and NOT to wipe them.

THIS ASSOCIATION APPEALS TO EVERY DAIRY FARMER TO PUT THESE PRECAUTIONS INTO OPERATION, BEING CONVINCED THAT IF PRODUCERS DO NOT TAKE MEANS TO ENSURE A CLEAN, WHOLESOME MILK SUPPLY THE DEMAND FOR FRESH MILK WILL SERIOUSLY DIMINISH.

Correspondence on this subject will receive attention at the Offices of the Association, 28, Russell Square, London, W.C. 1.

National Dairy Examination Board

APPOINTED BY

THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND,
THE HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND
THE BRITISH DAIRY FARMERS' ASSOCIATION.

Regulations and Syllabus for the National Diploma in the Science and Practice of Dairying,

1935

---

1. The Societies may hold annually in England and in Scotland, under the management of the National Dairy Examination Board appointed by them, one or more examinations for the National Diploma in the Science and Practice of Dairying ; the Diploma to be distinguished shortly by the letters "N.D.D."

2. The Examinations will be held on dates and at places from time to time appointed and duly announced.

3. Forms of Entry for the Examination in England may be obtained from "The Secretary, Royal Agricultural Society of England, 16, Bedford Square, London, W.C. 1," and must be returned to him duly filled up, with the necessary entry fee (see Regulation 13).

4. Forms of Entry for the Examination in Scotland may be obtained from "The Secretary, Highland and Agricultural Society of Scotland, 8, Eglinton Crescent, Edinburgh," and must be returned to him duly filled up, with the necessary entry fee (see Regulation 13).

5. Any candidate may enter for the Examination either in England or Scotland, but not in both, and a candidate who has once taken part in an Examination in England cannot enter for an Examination in Scotland, or *vice versa*. *An exception may be made in favour of a candidate re-appearing under Regulation* 11 (3) *provided special application is made at the time of entry.*

6. As a preliminary to the acceptance of any application for permission to enter for the Examination, a candidate must produce :—

(1) A certificate testifying that he or she has attended a Diploma Course in the subjects of the Examination covering *two academic years* at an approved Dairy Training Institution and has satisfied the authorities of the Institution of his or her fitness for admission to the Examination. This period shall include six session months' instruction (consisting of not more than two periods), in practical dairy work.

(2) Evidence that he or she has spent at least six months on an approved Dairy Farm and taken part in the work. This period must not run concurrently with the six months' practical training referred to in subsection 1.

A Dairy Farm to be approved must have not fewer than fifteen cows kept in daily milking.

7. A candidate who has already taken a Degree in Agriculture of a British University, or a Diploma in Agriculture recognised by the National Dairy Examination Board, will be allowed to enter for the National Diploma in Dairying Examination after one year's training at an approved Dairy Training Institution, providing that such course includes at least six months' training in practical dairy work, and that he or she has worked for at least six months on an approved Dairy Farm.

8. In the Examination a candidate will be required to satisfy the Examiners by means of written papers, practical work, and *viva voce*, that he or she has :—

(1) A general knowledge of the Management of a Dairy Farm, including the rearing and feeding of Dairy Stock, the candidate being required to satisfy the Examiners that he or she had had a thorough training and practical experience in all the details of Dairy work as pursued on a farm.

(2) A thorough acquaintance, both practical and scientific, with everything connected with the management of a Dairy, and the manufacture of Butter and Cheese.

(3) A general knowledge of Dairy Factory Management, Dairy Hygiene, Dairy Engineering and Dairy Book-keeping.

(4) Practical skill in Dairying, to be tested by the making of Butter and Cheese.

NOTE.—A candidate must be prepared to make any one of the following varieties of Hard Pressed Cheese, the Examiner in Cheesemaking having the option of saying during the Examination what variety a candidate shall make :—

At the English Centre :—Cheddar, Cheshire or Derby.
At the Scottish Centre :—Cheddar, Dunlop or Cheshire.

9. Candidates will have the option of :—

(*a*) Taking the whole Examination at one time ; or
(*b*) Taking the Examination in two parts.

A candidate taking the Examination in two parts must take the following subjects at the first sitting : DAIRY FARMING, DAIRY HYGIENE, PRINCIPLES OF DAIRYING, DAIRY FACTORY MANAGEMENT AND DAIRY ENGINEERING, PRACTICAL CHEESEMAKING AND BUTTERMAKING ; the remaining three Papers, CHEMISTRY AND PHYSICS, DAIRY BACTERIOLOGY, and DAIRY BOOK-KEEPING, to be taken at the Examination in the following year.

10. The maximum marks obtainable and the marks required for a pass in each subject are as follows :—

WRITTEN EXAMINATION—	Max.	Pass.
Dairy Farming	150	90
Dairy Hygiene	100	60
Dairying—		
(*a*) Principles of Dairying ...	150	90
(*b*) Dairy Factory Management and Dairy Engineering ...	100	50
Chemistry—		
(*a*) General Chemistry and Physics (*b*) Dairy Chemistry	100	60
Dairy Bacteriology	100	60
Dairy Book-keeping	100	50
PRACTICAL EXAMINATION—		
Hard-pressed Cheese-making	200	150
Blue-veined Cheese-making	100	75
Soft Cheese-making	100	75
Butter-making	200	150
	1,400	910

Honours will be awarded to candidates obtaining an aggregate of 80 per cent. (1,120) of the maximum marks (1,400) in the Examination, provided that they also obtain at least 80 per cent. (400) of the maximum marks (500) in the Dairy Farming, Hygiene, and Dairying papers.

11. A candidate taking the whole Examination at one time—
    (1) who fails in any part of the practical examination shall fail in the whole examination.
    (2) who fails in four or more subjects of the written examination shall fail in the whole examination,
    (3) who having passed in the practical examination, fails in not more than three subjects of the written examination, may, at the discretion of the Board, appear for those subjects in the following year.

The Board may in certain circumstances require evidence of further study in these subjects.

12. A candidate taking the Examination in two parts, and failing in a *single subject* in the first part of the Examination, may, at the discretion of the Board, appear for that subject along with the second part; or, in the case of a *single subject* of the second part, in the following year. The Board may in certain circumstances require evidence of further study in that subject. Failure in more than one subject will be regarded as failure in that part of the Examination. Failure in any part of the Practical Examination will entail complete failure.

13. The entrance fees will be as follow :—

	£	s.	d.
For the whole Examination taken at one time ...	3	3	0
For the Examination taken in two parts :			
First part	3	3	0
Second part	1	1	0

For re-appearance, 10s. 6d. each subject.

14. The Board reserve the right to postpone, to abandon, or in any way or at any time to modify an Examination, and also to decline at any stage to admit any particular candidate to the Examination.

SYLLABUS OF SUBJECTS OF EXAMINATION

1.—DAIRY FARMING AND DAIRY HYGIENE.

(a) Dairy Farming.

Soils and Crops.—Types of Soils suitable for dairying. Rotations and systems of cropping. Cultivation, manuring and management of grain, root and forage crops used in dairying. Silage. Temporary and permanent pastures, haymaking.

Plant Physiology.—Roots, shoots, flowers, fruit and seeds of agricultural plants.

Dairy Cattle.—Characteristics of different breeds. Relation of conformation and appearance to Milk Yield. Choice of dairy cattle in relation to climate and soil. The milk yields of the more important breeds, and suitability for the milk trade, cream, butter and cheese production.

The management of a Dairy Herd. Cattle breeding and grading up of dairy stock. Calf rearing and management of young stock.

Milk Recording. Systems, and utilisation of results. Details of official schemes.

Foods and Feeding.—Summer and winter feeding of dairy cattle and young stock. Fodder crops and green forage. Roots. Ensilage. Concentrated foods, meals, cakes. Preparation of food. The effect of food on milk and its products.

Pig Keeping.—Characteristics of the more important breeds. The breeding, rearing and fattening of pigs. Production of pork and bacon.

Farm Management.—Systems of dairy farming. The selection, stocking and equipment of typical farms. Organisation of the farm and disposal of produce.

Dairy Economics.—The Dairy Industry of Great Britain and its relationship to Agriculture. The relative importance of the various products. The retail milk trade. Markets, Dairy organisation and co-operation. Modern developments in the Dairy industry. Sources of imported Dairy Produce.

(b) Dairy Hygiene.

Animal Physiology.—General functions of the organs of the animal body. Breeding. Parturition. The structure of the udder and the process of milk secretion. Changes which food undergoes during digestion.

Veterinary Science.—The more important diseases of dairy cattle and their treatment. The transmission and eradication of disease.

Milk Hygiene.—Sanitary conditions. Suitability of water supply. Methods of milking and handling of milk. Regulations affecting milk production. Milk in relation to Public Health.

Farm Buildings.—Situation, chief dimensions and construction of cow houses and dairy buildings. Housing for young stock and pigs. Air space and ventilation, drainage and water supply.

2.—DAIRYING.

(a) Principles of Dairying.

Milk—Milking by hand and machinery. Importance of cleanliness. Cooling of milk. Prevention of contamination. Pasteurisation. Sterilisation. Keeping of milk. Milk testing and sampling. Use of Gerber and Babcock Testers. Interpretation of results. Legal standards. Legislation affecting milk production.

Cream.—Separators and their management. Different systems of cream raising and ripening of cream. Changes during ripening. Natural and artificial ripening, and preparation and uses of starters. Preparation of cream for sale. Uses of preservatives. Clotted cream.

Butter.—Churns and butter-making appliances. Preparation of cream for churning. Washing and working butter. Butter milk. Packing and transmission of butter. Selection and keeping of butter. Salting. Use of preservatives. Characteristics of good butter and method of judging. Circumstances affecting the flavour, texture, colour and keeping qualities of butter. Potting butter for keeping. Causes of inferior butter.

Cheese.—Principles of manufacture. Appliances for cheese-making. The making of the principal varieties of British, Colonial and Continental cheese from cream, whole milk and skim milk. Acidity of milk. Common tests for acidity. Uses of rennet and its substitutes. Whey. Ripening and storage of cheese. Packing and sale of cheese. Making of cream and other soft cheese. Defects in cheese and their causes. Judging cheese.

(b) Dairy Factory Management and Dairy Engineering.

Factory Practice.—Milk depots and handling of factory milk. Systems of cooling and refrigeration. Pasteurisation. Factory butter and cheese-making. Milk Powders. Condensed milk. Frozen milk. Ice cream. Dried casein. Fermented milk. Lactose and whey-butter. Margarine manufacture. Equipment of milk depots, butter, cheese and dairy factories.

Factory Management.—Factory routine. Organisation of labour. Handling of milk on arrival at the factory. Methods of dealing with the milk. Milk contracts. Dairy factory legislation.

Dairy Appliances and Machinery.—Appliances used in the production and handling of milk, butter and cheese. Care and management of engines and boilers, dairy factory machinery, refrigerating machinery.

Buildings.—Situation, construction and drainage of creameries, milk depots and dairy factories.

3.—CHEMISTRY.

(a) General Chemistry and Physics.

Chemistry.—Elements, compounds and mixtures. Chemical symbols, formulæ and equations. Acids, bases, salts: their distinctive properties. Acidity and alkalinity; their quantitative estimation. The Atmosphere: its constituents and impurities; influence on dairying operations. Water: its constitution; pure and natural waters; impurities in water and whence derived. Importance of a good water supply in dairying. General knowledge of elementary chemistry. Oxygen; hydrogen; carbon; nitrogen; phosphorus and sulphur; common metals; common acids; compounds of potassium, sodium, ammonium, calcium.

Elementary organic chemistry; sugar, milk sugar, starch, alcohol, acetic acid, formaldehyde, butyric acid, lactic acid, glycerine, saponification of fats; albumen, casein, pepsin.

Physics.—The different forms of matter; solid, liquid, gaseous. Specific gravity and instruments for determining it. Temperature and methods of measuring it. Expansion; thermometric scales. Influence of temperature in dairy operations. Atmospheric pressure and its measurement. Hygrometry. Heat and its measurement; specific heat. Latent heat. Conduction. Convection. Radiation. Solution. Filtration. Distillation. Simple machines, such as levers, pulleys and light weighing machine.

(b) Dairy Chemistry.

Chemistry of Milk.—The nature, composition, properties and chemical constituents of milk. Microscopical appearances presented by milk. The influence of feeding. The changes which occur in the keeping of milk, and how produced. The natural and artificial souring of milk. Rennet, its nature and uses.

Milk Products.—Physical and chemical changes involved in the making and keeping of butter and in the manufacture and ripening of cheese. Separated milk. Condensed milk. Fermented milk. Synthetic milk. The use of preservatives.

Dairy Analysis.—Analytical methods, their theory and practice. A general knowledge of the methods employed in the chemical analysis of milk, butter and cheese. Adulteration of milk, cream, butter and cheese, the ways in which adulteration is practised, the changes in composition thereby produced and a general knowledge of the methods employed in detecting the same.

Chemistry of Feeding.—The principal constituents of food materials and the functions they severally fulfil. The influence of food constituents on milk production. Assimilation and digestion. The manurial value of foods. Milk and milk products as foods.

N.B.—Candidates are required to bring to the Oral Examination their Laboratory note books in sections (*a*) and (*b*) of this subject certified by their teachers as being the record of their laboratory work carried out during the course.

4.—DAIRY BACTERIOLOGY.

General Bacteriology.—Bacteria; their form, classification, growth and reproduction. The microscope and its use. Staining and microscopic examination of bacteria. Methods of isolation and cultivation. Preparation of culture media. Fermentations and chemical changes produced by bacteria. Enzymes and their action. Effects of heat, cold, sterilisation, pasteurisation, disinfectants and preservatives on bacteria and enzymes. Bacteriological examination of water supplies.

Bacteriology of Milk.—The changes produced by bacteria in milk. Useful forms and their functions. Harmful forms and their effects. Coagulation, discolouration, taints, &c. Bacteriological and other standards in relation to the cleanliness of milk.

Milk Products.—The bacteria concerned in the ripening of cream and butter making. "Starters," their preparation and management. The ripening of hard, soft and blue-veined cheese. Bacteria injurious to milk products, including condensed and dried milk.

Dairy Mycology.—Moulds and yeasts in dairy practice. Their form, classification, growth and relation to dairy products.

N.B.—Candidates are required to bring to the Oral Examination in this subject their Laboratory notebooks certified by their teachers as being the record of their laboratory work carried out during the course.

5.—DAIRY BOOK-KEEPING.

Reasons for keeping accounts on the farm and in the dairy factory.

General principles of double-entry book-keeping. Use of day-book, journal, ledger, cash-book, analysis cash-book, and petty cash book. Preparation of profit and loss account, capital account and balance sheet. Adjustments necessary for the owner-occupier.

Valuations. Basis of valuations for accounting purposes on the farm and in the dairy factory. Dates for stock-taking.

Methods of accounting suitable for dairy farms and factories. Forms for milk-retailing, cheese-making, and butter-making.

Preparation of a cost account for milk production.

Interpretation and use of accounting results, with special reference to their practical application.

Opening a Bank account. Cheques, deposits, and over-drafts.

Assessment of the Farmer for Income Tax purposes.

6.—PRACTICAL SKILL IN DAIRY WORK.

Candidates must be prepared—(1) to produce before the Examination a satisfactory certificate of proficiency in the milking of cows, signed by a practical Dairy Farmer, and to satisfy the Examiners by a practical test, if so required ; (2) to churn and make into Butter a measured quantity of Cream ; and (3) to make one Cheese of each of the following varieties :—(1) Hard-pressed, of not less than 30 lb. (See Note to Reg. 8 (4). (2) Veined or blue-moulded of not less than 10 lb., and (3) also to make one or other of the following Soft Cheeses : Cambridge, Camembert, Coulommier, or Pont l'Evêque.

The British Dairy Farmers' Association

CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

Candidates for the Certificate in Dairy Factory Management must fulfil the following conditions :—

1. They must possess an approved Diploma in Dairying.
2. They must have had six months' practical instruction at an approved dairy factory, or at an approved dairy factory school.
3. They must obtain 60 per cent. of the possible marks in the examination for the Certificate in Dairy Factory Management.

Examination for the CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

1. Two papers will be set on the subjects outlined in the following syllabus.
2. Candidates will be examined orally in Factory Management with reference to the type of factory in which their practical training has been obtained.
3. Candidates must submit to the Examiners full notes of the work which has been carried out in the factories in which their practical experience has been obtained.

SYLLABUS OF EXAMINATION.

This Syllabus should not be viewed from a purely engineering standpoint, but students will be expected to have a general knowledge of the management of factory machinery :—

Paper 1.—Planning, Equipment and Management of a Dairy Factory.

Dairy Factories.—Site, building materials, construction, laying of floors, lighting, ventilation, drainage, sanitation, disposal and treatment of sewage and factory waste. Space requirements for the common types and sizes of factories.

Water Supply.—Water requirements ; sources of supply. Examination for quality and purity. Methods of purification. Suitability of water supplies for dairy purposes. Sites for wells. Construction of wells. Artesian wells. Pumps for deep and shallow wells. Air-lift pumps.

Factory Equipment.—Artificial lighting and sources of power in the factory. Equipment required for various types of factories and approximate cost of same. The disposition and control of factory machinery.

Steam Plant.—Types of vertical and horizontal boilers and their relative advantages and disadvantages. Sizes of boilers required in dairy factories. Evaporating power of boilers. Setting and insulation. Cleaning out of boilers. Economical firing. Fuel used, *e.g.*, coal, coke and wood. Cost and calorific value. Fuel consumption and cost of steam production. Allocation of steam supply to different purposes in the factory. Boiler smoke stacks and their construction. Boiler fittings, including donkey pumps and water injectors. Feed heaters. Methods of economising steam supply.

Factory Machinery.—Steam, gas and oil engines. Electric motors, turbines, water power, comparison of the various types and their relative efficiency. Construction and working of the various types. Cost of maintenance. Power requirements of the factory and the most suitable combinations of power when different sources of energy are available. The management and fitting up of machinery, including electric fittings. Adjustment of bearings. Packing of glands. Fixing of brackets, &c. Lubrication of machinery. Oil containers and filters. Lubricants. Lubrication of high-speed machinery. Oils and grease for shafting. Arrangement of machinery and methods of transmitting power. Belts, types and uses. Repairs to belting. Pulleys and gearing. Methods of increasing and reducing speed. Labour-saving devices. Tools required for a dairy factory.

Factory Plants.—Construction and operation of milk apparatus, including clarifiers, pasteurisers, separators, milk pumps, refrigerators, &c. Refrigerating machinery, CO2 and ammonia. Methods of operation and management. Cold storage and brine cooling. Efficiency in the transfer of heat in heating and cooling apparatus. Methods of carrying out efficiency tests under different conditions and outputs. Factory appliances including cheese vats, holding vats, power churns, bottling machinery and other factory equipment. Their approximate cost and suitability of the various types. Methods of cleaning equipment, utensils and milk churns.

Factory Management.—Organisation of labour. Business management. Book-keeping. Cost accounts. Profit and loss in manufacturing. Stock-taking and depreciation. Railway rates and conditions. Road transport. Systems and comparative costs. Advertising. Markets and sale of produce. Co-operative organisation.

Factory Law.—Law as far as it affects the factory, the management and the produce. Factory and Workshops Act. Workmen's Compensation. Health Insurance. Employer's Liability and Trade Boards Acts. Industrial and Provident Societies Act. Rivers Pollution Act. Sale of Foods and Drugs Act. Milk and Dairies Acts, and other legislation as it affects the working of factories and the manufacture and sale of dairy produce.

Paper 2.—Handling and Utilization of Milk and Milk Products.

Handling of Milk.—Purchase, collection and distribution of milk. Management of milk on arrival at the factory. Weighing, sampling, testing, recording and cleaning. Methods of paying for milk and cream.

Utilization of Milk.—Methods of dealing with milk for sale for cream production, buttermaking, cheesemaking, and for the manufacture of other products.

Factory Products.—Preparation of cream for market. The manufacture and treatment of butter and cheese. Manufacture of condensed and powdered milk, casein and milk sugar, &c. Ice cream manufacture, &c. The utilization of by-products.

Pig-Keeping.—Feeding and management of pigs. The production of pork and bacon. Bacon curing.

The Entry Fee for each Candidate is £4 4s.

Any further particulars and Entry Forms for this Examination may be obtained from—

THE SECRETARY,
BRITISH DAIRY FARMERS' ASSOCIATION,
28, Russell Square, London, W.C.1.

Examination for
CHEESEMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Cheesemaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce*. On the same or following day a Practical Examination in Cheesemaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. of the marks on each and every written paper and not less than 66 per cent. in the Practical Test.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least twelve months' instruction in the Theory and Practice of milk production and Cheesemaking, of which at least six months must have been spent at a recognised centre for dairy instruction. They must possess a sound knowledge of the subjects included in the following Syllabus.

Candidates will be required to make one Hard-pressed Cheese, either Cheddar, Cheshire or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate. They must also have a knowledge of the manufacture of other varieties of Hard-pressed Cheese and of Soft Cheese.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

The Examination for Cheesemaking Certificates is held at the British Dairy Institute, Reading, in the Autumn of each year, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 10s.

SYLLABUS.

1. *Milk.*—The Food Value of Milk; The Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from Cow to Dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Food on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its Constituents; Differences between Morning and Evening Milk and their Causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its Nature and Properties; the Keeping of Dairy Records; the Handling of Evening's Milk for Cheesemaking; Properties of Milk suitable for Cheesemaking; Taints in Milk, their Causes, Effects and Remedies; Tests for such Taints; the Ripening of Milk for Cheesemaking; Methods and Reasons for Ripening; use of Natural and "Culture" Starters; Pasteurisation of Milk; Chilled Milk; their subsequent use for Cheesemaking; Special Testing of Milk, Whey, and Curd requisite in a Cheese Dairy; Utilization of Dairy By-products.

2. *Cheese.*—Rennet: its Preparation, Properties, and Action upon Milk; Testing its Strength; Storage of Rennet; Substitutes for Rennet; Anatto; a General Knowledge of the Manufacture of the Principal Varieties of Hard-pressed, Blue-veined and Soft Cheeses, including the use of wood and metal tubs and jacketed vats; Methods of Scalding; the Development and Control of Acidity in Curd; Salting and Brining in Cheesemaking; Bandaging; Ripening and Storing of Hard-pressed, Blue-veined and Soft Cheeses; Defects in Cheese and their Causes; Composition of Cheese; Composition and Utilization of Whey; the Manufacture of Whey Butter; the Equipment of a Cheese Dairy and its Cost; the care of Utensils; the Detailed Principles and Practice requisite for the Manufacture of one of the following types of Cheese:—
    - (*a*) A Hard-pressed British Cheese (not less than 25 lbs. weight).
    - (*b*) A Blue-veined British Cheese (not less than 10 lbs. weight).

Any further particulars and Entry Forms for this Examination may be obtained from—

THE SECRETARY,
BRITISH DAIRY FARMERS' ASSOCIATION,
28, Russell Square, London, W.C. 1.

Examination for
BUTTERMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Buttermaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce.* On the same or following day a Practical Examination in Buttermaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. on each and every written paper, and not less than 66 per cent. in the Practical Test.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least three months' instruction (not necessarily at a Dairy School) in the theory and practice of Milk and Cream production and management, and Buttermaking. They must possess a sound knowledge of the subjects included in the following syllabus.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

The Examination for Buttermaking Certificates is held at the British Dairy Institute, Reading, in the Autumn of each year, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 5s.

SYLLABUS.

1. *Milk.*—The Food Value of Milk; the Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from Cow to Dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Foods on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its constituents; Differences between Morning and Evening Milk and their causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its Nature and Properties; the Keeping of Dairy Records.

2. *Cream.*—The Various Methods of Obtaining Cream; the Construction and Use of the Utensils employed; Separators, the Construction and Use of the various Types; Composition of Cream, Separated Milk, Skimmed Milk, and Buttermilk, with Simple Tests for Fat in same; the Ripening of Cream—Objects and Results; Changes during Ripening; Testing for Acidity; Natural and Artificial Ripening and Preparation of Starters; the Preparation of Cream for Churning; Preparation of Cream for Sale; Clotted Cream.

3. *Butter.*—The Various Methods of obtaining Butter, including the Churning of Whole Milk; Utensils required, and the Preparation, Use, and Care of same; the Process of Butter Manufacture in all its details; Conditions which affect the Butter Yield; Circumstances affecting the Flavour, Texture, Colour, and Keeping Properties of Butter; Dry-salting and Curing of Butter; Faults in Butter and their Causes; Composition and Properties of Good Butter; Composition and Causes of Inferior Butter; Methods of Judging Butter.

Any further particulars and Entry Forms for this Examination may be obtained from—

THE SECRETARY,
BRITISH DAIRY FARMERS' ASSOCIATION,
28, Russell Square, London, W.C. 1.

EXAMINATIONS

AT

LOCAL CENTRES.

In order to meet the convenience of Students at Dairy Schools, members of local Societies, and other persons, the Association will conduct Examinations for its Certificates at any place in the United Kingdom upon receiving satisfactory proof that the following conditions will be observed :—

That the School, Society, County Council, or other body requesting such Examination to be held undertake :—

(1) To supply all necessary appliances and materials.

(2) To pay the fees and expenses of the Examiners.

(3) To supply the milk required free from preservatives and fit for Cheesemaking.

Copies of Question Papers set at recent Examinations may be obtained at 3d. per copy.

Applicants are requested to state whether Cheese or Butter questions are required.

Further particulars and Entry Forms for Students may be obtained from—

The Secretary,
British Dairy Farmers' Association,
28, Russell Square, London, W.C. 1.

National Dairy Examination Board

Appointed by the Royal Agricultural Society of England, the Highland and Agricultural Society of Scotland, and the British Dairy Farmers' Association.

Report on the Results of the Fortieth Examination for the National Diploma in Dairying 1935

1. The seventh Examination under the auspices of the present Board—and the Fortieth Annual Examination for the National Diploma in Dairying—was, by the courtesy of the Authorities, held during September at the University and British Dairy Institute, Reading, for English and Welsh students, and at the Dairy School for Scotland, Auchincruive, Ayr, for Scottish students.

2. As a preliminary to the acceptance of an application for permission to enter for the examination, a candidate was required to produce :—(1) A certificate testifying that he or she had attended a Diploma Course in the subjects of the Examination covering *two academic years* at an approved Dairy Training Institution ; (2) Evidence that he or she had spent at least six months on an approved Dairy Farm and taken part in the work.

3. A candidate who had already taken a Degree in Agriculture of a British University or a Diploma in Agriculture recognised by the Board, could enter for the Examination after one year's training at an approved Dairy Training Institution providing that such course included at least six months' training in practical dairy work, and that he or she had worked for at least six months on an approved Dairy Farm.

4. The written Examination included papers in Dairy Farming, Dairy Hygiene, Principles of Dairying, Dairy Factory Management and Dairy Engineering, Chemistry and Physics, Dairy Bacteriology and Dairy Bookkeeping. The Practical Examination comprised Hard-pressed, Blue-veined, and Soft Cheese-making, and Butter-making.

5. A candidate had the option of taking the whole examination at one time, or of taking only Part I., which omits Chemistry, Bacteriology and Book-keeping. These last three subjects—constituting Part II.—have to be taken at the examination of the year following that at which Part I. was passed.

6. A candidate taking the whole examination, who, having passed in the practical examination, failed in not more than *three* subjects of the written examination might, at the discretion of the Board, appear for those subjects in the following year. A candidate who failed in four or more subjects of the written examination, or in any part of the practical examination, failed in the whole examination.

7. A candidate taking the examination in two parts, and failing in a *single subject* in Part I., might at the discretion of the Board, appear for that subject along with Part II. ; or, in the case of a *single subject* of Part II., in the following year. Failure in more than one subject was regarded as failure in that part of the Examination. Failure in any part of the practical examination entailed complete failure.

8. At both Centres the same Questions were answered by the candidates from September 5 to 7. The Practical Examination as well as the *viva voce* was conducted at the Scottish Centre from September 10 to 14 and at the English Centre from September 17 to 20.

9. Forty-six candidates presented themselves at the Scottish Centre, of whom nine were re-examined in subjects in which they had previously failed ; 36 took the whole examination and one appeared for Part I. Twenty-three candidates succeeded in passing the examination, but no Honours were awarded. Following are the names of the Diploma-winners in alphabetical order :—

SCOTTISH CENTRE.

DIPLOMA.

George T. Chalmers, John A. Collier, Annie Cook, Hugh Ferguson, Geoffrey F. Francis, Christian J. W. Gall, Malcolm Gillies, William Hail, Nannie M. Johnston, Catherine W. King, William Longrigg, Augusta M. J. MacKinnon, Catherine Mathieson, Maria A. Murray, George Paterson, Grace Picken, Johnston F. Robb, Ralph Segal, Alec G. Seton, Ford G. Sturrock, Fanny E. A. Sutherland, Nicklas E. Wilson, Alice W. G. Wylie.

Eighteen candidates failed in not more than three subjects, for which they will be permitted to reappear in 1936.

All the candidates at the Scottish Centre had been students at the Dairy School for Scotland, Auchincruive, Ayr.

10. Of the 54 candidates who presented themselves at the English Centre, 1 entered for Part II., 9 appeared for re-examination in subjects in which they had previously failed, 42 took the whole examination, and 2 entered for Part I. only.

Twenty-six candidates were awarded the Diploma, but none attained to the Honours standard. The names of the successful candidates, in alphabetical order, are as follows :—

ENGLISH CENTRE.

DIPLOMA.

Agnes E. Archer, Leslie A. Arscott, Grenville R. H. Bishop, Ethel I. R. Calder, Albert Croft, Betty Cruickshank, Frances R. M. Davies, Robert M. Dickson, Marion G. Dobson, John D. Griffiths, Annie Harries, Edwin R. W. Henson, Joyce A. Holden, Joyce Holland, Gwen M. Hughes, Maggie M. Jones, Doreen Kelly, Marjorie Massey, Elizabeth A. Meredith, Dorothea Nance, George H. Proffit, Blodwen Roberts, Iorwerth Roberts, James M. Trew, Jane A. Tudor, Joyce M. Walker.

Fifteen candidates failed in not more than three subjects, for which they will be allowed to reappear at next year's Examination.

11. The Examiners at both Centres were: Alex. F. Smith, N.D.A., N.D.D., C.D.D. (*Dairy Farming, Dairy Hygiene and Practical Butter-making*): Edward Capstick, M.C., M.Sc., N.D.A., N.D.D. (Hons.) (*Principles of Dairying, Dairy Factory Management and Dairy Engineering, and Practical Cheese-making*); Dr. S. Allinson Woodhead, F.I.C. (*Chemistry and Physics*); A. T. R. Mattick, B.Sc., Ph.D. (*Dairy Bacteriology*); James Wyllie, B.Sc., N.D.A. (Hons.), N.D.D. (*Dairy Book-keeping*)

Results of Examinations held by the British Dairy Farmers' Association during 1935.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE SOMERSET FARM INSTITUTE, CANNINGTON; ON MONDAY, TUESDAY AND WEDNESDAY, MARCH 25TH, 26TH AND 27TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Dorothy M. Bridle, Leslie J. Drew, Vivienne C. L. Garrett, Kathleen A. Guppy, Trevor Hillier, Gladys M. Owens, Evelyn W. Spry, Cecil Trump, Lucy J. Westmacott and Herbert L. Wyatt.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Dorothy M. Bridle, Leslie J. Drew, Vivienne C. L. Garrett, Gladys M. Owens, Evelyn W. Spry, Cecil Trump and Lucy J. Westmacott.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE FARM INSTITUTE, SPARSHOLT; ON TUESDAY, WEDNESDAY AND THURSDAY, JULY 9TH, 10TH AND 11TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Joan M. Bennett, Dulcie R. H. Giles, Marjorie Ward and Nellie M. Whillier.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Joan M. Bennett, Dulcie R. H. Giles, Marjorie Ward and Nellie M. Whillier.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT STUDLEY COLLEGE, STUDLEY ; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 22ND, 23RD AND 24TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Janet L. Davis, Joyce M. H. Dean, Frances E. L. Epps, Jean L. Gemmill, Irene J. B. Harding, Mary C. Hatch, Margaret F. Leefe, Rosamond N. Maltby, Gibraltar Noble and Norah F. Tanner.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Cecily A. Brent-Good, Helen T. Brown, Joyce M. H. Dean, Rose de Komar, Jean L. Gemmill, Joama L. N. Lindsell, Rosamond N. Maltby, Doris M. Stoodley, Barbara C. Taylor and Hendrika F. G. van Beuningen.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE AGRICULTURAL INSTITUTION, USK, MONMOUTHSHIRE ; ON MONDAY, TUESDAY AND WEDNESDAY, AUGUST 12TH, 13TH AND 14TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Derek W. Bartlett, Ernest B. Bradley, Brian Davey, David E. Evans, Richard Hall, Nancy J. Heath, Donald R. Knight, Harold Morgan Marjorie C. Payne, Stanley J. Preedy, Dorothy W. Price, John F. S. P. Price, Ida M. Quinton, Magnus Webber, Ethel L. Williams, William H. Wixey and Mary S. Woodruff.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Dorothy W. Price, Ida M. Quinton and Ethel M. Williams.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE BRITISH DAIRY INSTITUTE, READING ; ON MONDAY, TUESDAY AND WEDNESDAY, SEPTEMBER 9TH, 10TH AND 11TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Leslie A. Arscott, Alice M. Coker, Olive Halfacre, Ruth Hambly, Doreen Kelly, John E. C. Oxenham, Ernest Y. Robinson, Dorothy Theakston and Mahmoud Zein-El-Dine.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Leslie A. Arscott, Joyce Grindon, Ruth Hambly, Doreen Kelly, Ida G. Percy-Roberts, Dorothy Theakston, George D. Winter and Mahmoud Zein-El-Dine.

National Dairy Examination Board

Papers set for the National Diploma in Dairying, September, 1935

DAIRY FARMING.

(*Time allowed, three hours*).

All Questions to be attempted.

1. What (*a*) Forage, (*b*) Cereal, (*c*) Root Crops would you consider most suitable for growing on :—

(1) Heavy Clay Land,
(2) Medium Loam,
(3) Peat or Black Moss Land.
(4) Light Sandy Soil.

2. What factors affect the germination of seeds ? How does the practical farmer put into practice his knowledge of these factors ?

3. Discuss the suitability or otherwise of the undernoted as food for (*a*) Dairy Cows in Milk, (*b*) Fattening Pigs :

(1) Maize Meal,
(2) Oats,
(3) Barley,
(4) Bran,
(5) Cotton Seed Meal,
(6) Fish Meal,
(7) Dried Sugar Beet Pulp,
(8) Treacle.

4. (*a*) In buying or selling home produced grain, on what measure or weight must the bargain be concluded ?

(*b*) What would you consider an average yield per acre and weight per bushel for :—

(1) Wheat, (2) Barley, (3) Oats.

5. (*a*) What are the principal countries (in order of importance) from which Britain imports bacon ?

(*b*) What steps could or should be taken to make Britain more nearly self-supporting as regards bacon ?

6. In selecting a farm for the production of milk to be sold wholesale for liquid consumption :—

(*a*) Would you select one adjacent to the consuming centre or not ? Give detailed reasons :

(*b*) What breed of cows would you select Give reasons for choice.

7. What regulations exist in regard to the cutting of weeds ?

DAIRY HYGIENE.

(*Time allowed, two hours*).

All Questions to be attempted.

1. What are the symptoms and treatment of Bovine Mastitis ?

2. What indications would lead you to suspect that one of the animals in the dairy herd was unwell ?

3. What points would you pay special attention to in regard to the drains on a dairy farm and why ?

4. If you wish thoroughly to cleanse a :—
   (*a*) Dairy Byre or Cowhouse,
   (*b*) Pig House,
in which animals suffering from some infectious or contagious disease have been housed, how would you proceed and what materials would you use ?

5. What factors affect milk secretion in regard to :—
   (*a*) Yield,
   (*b*) Butter Fat percentage.

PRINCIPLES OF DAIRYING.

(*Time allowed, three hours*).

Only Seven Questions to be attempted.

1. At what season of the year is butter especially inclined to be greasy in texture ? Enumerate methods of avoiding this defect.

2. What yield of butter would you expect to obtain from 160 gallons of milk with a butter fat content of 3.65% ? Show your detailed calculations. What would be the moisture content of the finished product ?

3. What are the common defects to be found in sterilised cream ? How can they be avoided ?

4. Briefly discuss the phenomenon of slow starters in cheese-making.

5. During the manufacture of a Cheddar cheese, the curd in the whey displays gas production. What steps would you take to minimise the trouble during the remainder of the manufacturing process.

6. Describe briefly the manufacture of crustless cheese, stressing the important points which ensure success. Make special reference to the wrapping materials in use.

7. What is rennet ? How is it made ? Have any substitutes been successfully produced ?

8. Define a cream cheese. How are cream cheeses usually packed for sale ? Why are the sales of this type of Cheese extremely limited ?

DAIRY FACTORY MANAGEMENT & DAIRY ENGINEERING.

(*Time allowed, two hours*).

Only Five questions to be attempted.

1. Give the percentage compositions of a high and a medium grade ice cream mix. What functions do the various constituents fulfil ?

2. Discuss the present state of knowledge of the influence of metals on milk and dairy products.

3. What methods are in use for the cooling of sweetened condensed milk ? Describe in detail one type of apparatus in use.

4. With the aid of diagrams briefly describe the layout of a plant capable of pasteurising milk on a commercial scale.

5. Compare and contrast roller and spray dried milk powder under the following heads :—

(*a*) Moisture Content.
(*b*) Size and uniformity of particle.
(*c*) Solubility.
(*d*) Keeping quality.
(*e*) Commercial uses.

6. What methods are available for whey disposal and utilisation. on a large scale ?

CHEMISTRY AND PHYSICS.

(*Time allowed, two hours*).

Questions 1, 2, 3 and 4, must be answered, and either Question 5 or 6, but not both.

1. Define Acid, Base, Salt, and give two examples of each.

Write equations representing the reactions between (*a*) Tricalcic phosphate and Sulphuric Acid. (*b*) Sodium hydroxide and Lactic Acid. (*c*) Potassium hydroxide and an Alcoholic solution of a Fat or Oil.

2. Distinguish between Heat and Temperature.
Convert 15.6°C. to Fahrenheit.
98.4°F. to Centigrade.
20°F. to Centigrade.
—15°C. to Fahrenheit.

3. Compare the chemical and physical properties of Cane Sugar and Milk Sugar. Trace the formation of Acetic Acid from Cane Sugar and Lactic Acid from Milk Sugar.

4. Name the principal constituents of Feeding Stuffs. Choose any two and state clearly the functions they fulfil in the animal economy. Distinguish between Amides and Proteids, and between Oils and Fats.

5. A sample taken from a consignment of milk delivered at a Dairy gave the following results on analysis :—

Water	88.69%
Fat	3.15%
* Solids not Fat	8.16%
* Including Mineral Matter ...	.68%

What conclusions would you draw from the said analysis? State your reasons for same. Also what steps would you take to verify your conclusions?

6. Write a short account of *one* of the following :—
   - *a.* The Pasteurization of Milk.
   - *b.* The Gerber Test for Fat.
   - *c.* Cream Cheese.

DAIRY BACTERIOLOGY.

(*Time allowed, two hours*).

Answer Five Questions Only.

1. Give, in note form, the details of the composition and preparation of a solid medium suitable for use in enumerating the organisms in milk. What factors subsequent to the pouring of the plates influence the size and accuracy of the plate count ?

2. Describe the main characters of the following organisms and state the conditions under which they may gain access to the dairy products with which they are commonly associated :—

(*a*) Oidium lactis.
(*b*) Pseudomonas fluorescens (B. fluorescens liquefaciens).
(*c*) Bact. aerogenes (B. lactis aerogenes).
(*d*) Clostridium sporogenes.

3. What bacteriological examinations would you advise in determining the causes of faults in butter ? Give reasons for your answer.

4. What steps, involving the use of bacteriological methods, would you take to trace the causes of high plate counts and poor keeping quality in milk pasteurised at 145°F for 30 minutes, cooled and bottled.

5. A pure culture starter is required and a laboratory is at your disposal. Describe the steps you would take to isolate the appropriate organism from ordinary sour milk, identify it and produce a suitable starter for cheesemaking.

6. What bacterial and enzymic factors are associated with the processes of manufacture and ripening in Cheddar cheese ? What are the essential differences between the ripening processes of Stilton and Cheddar cheese ?

N.B. *Cheesemaking details* are not required.

DAIRY BOOK-KEEPING.

(*Time allowed, three hours*).

Three questions to be attempted ; one must be No. 1, which should be completed before answering Nos. 2, 3 or 4.

MARKS WILL BE GIVEN FOR ACCURACY AND NEATNESS.

1. Mr. F. Perry has an all-grass farm which is used principally for milk production. From the information given below prepare—

(*a*) Balance Sheet at Michaelmas (September 29th), 1933 ;

(*b*) Statement of Accounts for the year ended Michaelmas, 1934 ;

(*c*) Balance Sheet and Capital Account at Michaelmas, 1934.

(You may show any subsidiary accounts which you think are necessary).

Valuations	*At Mich.*, 1933. £	*At Mich.*, 1934. £
Horses	63	110
Dairy Stock	1920	1557
Sheep	147	262
Pigs	—	30
Poultry	39	35
Equipment	530	509
Hay—home-grown	200	338
Purchased Foods	62	121
General Stores	—	19
	£2,961	£2,981

At Michaelmas, 1933, sundry debtors owed him £178 while he owed sundry creditors £270. He had £7 cash in hand and a bank balance of £195.

Receipts for 1933-34.	£		£
Dairy Stock	272	Sundry Receipts ...	19
Sheep and Wool ...	222	Private ,, ...	5
Poultry and Eggs ...	79	Sundry debtors at Michaelmas, 1933 ...	57*
Milk	1,757		
Grazing Rents	14		
Farmyard Manure ...	7		£2,432

*£3 was written off as a bad debt and the balance of the amount at Michaelmas, 1933, was unpaid.

Payments for 1933-34.	£		£
Horses	42	Rent and Rates	95
Dairy Stock	179	Live Stock Expenses	35
Sheep	221	Insurances	12
Pigs	13	Repairs and Renewals	142
Poultry	11	Sundry Expenses	27
Equipment	15	Private ,,	222
Foodstuffs, including Hay	955	Sundry creditors at Michaelmas	206*
General Stores	94		
Wages	312		
			£2,581

*A discount of £4 was allowed on one account and the balance of the amount at Michaelmas, 1933, was unpaid

Sundry Debtors at Mich., 1934.	£	**Sundry Creditors at Mich., 1934.**	£
Horses	26	Foodstuffs	114
Milk	211	Wages	3
Eggs	10	Rent and Rates	207
Grazing Rents	11	Live Stock Expenses	3
Sundries	15	Repairs and Renewals	10
From Mich., 1933	118	Sundries	8
		From Mich., 1933	60
	£391		£405

The value of the farmer's own labour was put at £130. Farm produce valued at £16 was used in the farmhouse, and also coals to the value of £6. The farmer's private account should be charged with £15 for use of the farm car and £15 for rent and rates on the farmhouse.

There was prepaid account at Michaelmas, 1934, of £25, being a deposit on two stacks of hay purchased but not delivered before Michaelmas, 1934.

Cash in hand at Michaelmas, 1934, was £9.

2. Why is it necessary to make an annual valuation for book-keeping purposes ? Given a free choice, at what date would you make the annual valuation on a dairy farm and why ? Comment on the statement : " Valuation prices of dairy cows should follow market prices up and down."

3. Describe very briefly the kind of Dairy factory with which you are most familiar and give a short account (*a*) of the method of Book-keeping actually in operation or (*b*) of the method of Book-keeping which you consider suitable for such a factory.

4. In the case of producer-retailers of milk where all the work on the rounds is done by hired workers and all the milk sold in bottles, describe clearly what records should be kept (*a*) in order to check the quantities of milk taken out by the various roundsmen : and (*b*) in order to check the quantities sold with the cash received, assuming that some customers pay cash on delivery, some weekly and some monthly.

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT SOMERSET FARM INSTITUTE, CANNINGTON, MONDAY, TUESDAY, AND WEDNESDAY, MARCH 25TH 26TH AND 27TH, 1935.

EXAMINER:

MISS J. STUBBS.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Discuss in detail the production of highest grade milk.

2. What influence has food on the yield, flavour and fat content of milk?

3. What is colostrum? Give its average composition.

4. Describe any separator with which you may be familiar, and show by arrows the passage of the milk through it.

5. How would you ripen cream for buttermaking? Give the temperatures and treatment you would suggest from the time the milk is received in the dairy until the cream is ready to churn.

6. Briefly describe:—
   (*a*) A well made sample of butter, and give the points by which you would judge it.
   (*b*) Spongy butter, and give the cause.

7. Give the butter ratio of an average milk and state how much would be required to make 1 lb. of butter should the milk contain 3.6% of fat.

8. Describe the method you would adopt when testing a sample of milk for fat and solids not fat.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT SOMERSET FARM INSTITUTE, CANNINGTON, MONDAY, TUESDAY AND WEDNESDAY, MARCH 25TH, 26TH and 27TH,

EXAMINER :

MISS J. STUBBS.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. Which milk constituents are used in the manufacture of cheese, and what becomes of the remainder ? Give an average composition of whey.

2. What difference in quantity and fat content would you expect between morning's and evening's milk ? Give reasons for your answer.

3. From a herd of 30 cows, what quantity of milk would you expect daily in June and September ? Give also the yield of Cheddar per gallon in both instances.

4. Describe the action of rennet on milk and give the amount you would use, also the renneting temperatures :—
   (*a*) when making 50 gallons of milk into Cheddar,
   (*b*) when making 50 gallons of milk into Caerphilly.

5. Give two methods of testing the acidity of milk for cheesemaking. Sketch the apparatus used for one of these.

6. One hundred gallons of evening's milk arrives at the Dairy at a temperature of 91°F. State your treatment of it for cheesemaking the following morning. What serious effects could occur from incorrect handling ?

7. Compare the use of natural and pure culture starters and describe how you would propagate the latter.

8. How do you account for the differences in the texture and keeping qualities of Cheddar and Caerphilly ?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE FARM INSTITUTE, SPARSHOLT; ON TUESDAY, WEDNESDAY AND THURSDAY, JULY 9TH, 10TH AND 11TH, 1935.

EXAMINER: MISS D. V. DEARDEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. For what purpose is a creamometer used? What percentage of cream is usually obtained for:—(*a*) cream selling, (*b*) buttermaking? When using a centrifugal separator by what means can the percentage of cream be varied?
2. What are the objects of ripening cream previous to buttermaking? State the advantages and disadvantages of natural souring over ripening by "starter."
3. What weight of fat would you expect in 2 gallons of cream when ready to churn? What yield of butter would be obtained?
4. What condition of butter indicates uneven distribution of salt? How would you obtain satisfactory distribution when dry salting is adopted?
5. To what extent does the food of the cow influence the quality of the butter?
6. Enumerate the properties of butter on which it may be judged. Allocate suitable points on a maximum of 100. What deductions may be made from each property with regard to the keeping quality of the butter?
7. What are the conditions under which the best results are obtained from a separator? What amount of fat is usual in the separated milk?
8. In what ways may utensils be unsuitable to use for milk or its products? What faults may be caused by the use of unsatisfactory utensils?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE FARM INSTITUTE, SPARSHOLT; ON TUESDAY, WEDNESDAY AND THURSDAY, JULY 9TH, 10TH AND 11TH, 1935.

EXAMINER: MISS D. V. DEARDEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What deductions may be made with regard to the quality of cheese from their appearance in the ripening room ?
2. If it is desired to make a quicker ripening cheese than the normal, what alterations in manufacture would be necessary ?
3. Give the headings of manufacturing records for Cheddar and Stilton cheese, filling in for both, typical figures for a day's make.
4. By what means, in the manufacture of Cheddar, Cheshire, Derby and Stilton cheeses are the characteristic differences in body, texture and flavour obtained ?
5. Describe the treatment of the evening milk, on a cheesemaking farm, from the time of milking until the addition of the morning milk.
6. What are the factors influencing the action of rennet ? Why is it usual to dilute rennet previous to adding it to the milk ?
7. What conditions in a starter indicate that a new culture is required ? What are the essentials to maintain a starter in good condition ?
8. What means are available for the determination of acidity throughout the cheesemaking process ? Indicate the reliability and limitations of each method.
9. For what purpose is salt added to curd ? What would be the effect of adding (*a*) Too little, (*b*) Too much ?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE STUDLEY COLLEGE, WARWICKSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 22ND. 23RD AND 24TH, 1935.

EXAMINER: MISS V. E. CHEKE.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. What simple tests do you advise for controlling the fat content, and relative cleanliness, of milk for a small dairy ?

2. Why is "farmhouse" butter so liable to inequality ? How could this be remedied ?

3. Do you advise the grading of cream for sale, and if so, on what basis ?

4. A sample of butter shows the following composition :—

   Fat, 78 ; Water, 18 ; Protein, 1.9 ; Ash, 2.1.

   Give possible causes of any abnormalities.

5. Describe the preparation of a starter from a powder culture, and the method of subsequent up-keep. What quantities would you use to ripen bulk cream during the summer ?

6. How would you obtain a sample of milk for fat testing from (*a*) milk of one cow, (*b*) 50 gallons delivered in churns ?

7. How may the following influence the general properties of butter :—

   (*a*) colostrom, (*b*) overacid cream, (*c*) excessive working, (*d*) storage at 40°F. ?

8. Compare the effect on bacterial content, and food value, of milk by (*a*) heating to 145°F. for 30 minutes, (*b*) storage at 40°F. for 5 days.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE STUDLEY COLLEGE, WARWICKSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 22ND, 23RD AND 24TH, 1935.

EXAMINER: MISS V. E. CHEKE.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. How would you vary the manufacture of Cheddar cheese when dealing with 500 gallons, and 50 gallons, of milk ?

2. What are the required conditions of humidity for the ripening of (*a*) hard pressed, (*b*) blue-veined, cheese ? How can the development of blue veins be hastened ?

3. Describe the manufacture, and methods of marketing, of Gervais and Double Cream Cheese.

4. What would be the effect on the finished cheese of the following :—
    1. Derby curd milled wet at .85% acidity.
    2. Wensleydale curd milled dry at .9% acidity ?

5. How would you deal with milk for cheesemaking that has been retained in cold store for a week, and which shows an initial acidity of .165% ?

6. What are the chief causes of :—
    (*a*) Slipcoat in Stilton,
    (*b*) Greasy texture in Cheddar ?

7. Show by calculation the deduction of precentage acidity in milk, using a Ninth-Normal solution of caustic soda.

8. By what means is it possible to control acidity in cheesemaking under farmhouse conditions, without the use of starter ?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE AGRICULTURAL INSTITUTION, USK, MONMOUTHSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, AUGUST 12TH, 13TH AND 14TH, 1935.

EXAMINER:

J. G. W. STAFFORD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Give the average compostion of Shorthorn cows' milk. Why is it that milk varies both in quantity and quality?

2. Make a rough sketch of a cream separator and explain its working.

3. How would you ripen cream for butter making and what are the advantages of doing this?

4. How would you salt butter to ensure its keeping in good condition for several months?

5. Given 200 gallons of milk containing 3.6% of fat, how much butter containing 84% fat should this produce and what would be the "Butter Ratio"?

6. How is it that so much of the farmhouse butter made to-day is of inferior quality?

7. Discuss the value and uses of separated milk and whey.

8. Write what you know about one of the following :—
    (*a*) Certified milk,
    (*b*) Grade "A" milk,
    (*c*) Pasteurised milk?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE AGRICULTURAL INSTITUTION, USK, MONMOUTHSHIRE; ON MONDAY, TUESDAY, AND WEDNESDAY, AUGUST 12TH, 13TH AND 14TH, 1935.

EXAMINER:
J. G. W. STAFFORD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What simple tests could you use in order to determine whether or not a consignment of milk was suitable for cheese making?

2. Work out the Total Solids and Solids not Fat in a sample of milk from the following data:—

   Fat, 3.5% Sp. G., 1.032.

3. Does the quality of milk influence the quality and weight of cheese produced therefrom? Discuss this.

4. What are the causes of cheese leaking and heaving when in the ripening room?

5. How would you treat whey at a farm dairy so as to get the maximum amount of good whey butter from it?

6. Describe the manufacture of any soft cheeses you have made.

7. Explain why a good Stilton cheese is blue veined, whereas a good Cheddar is not.

8. How would you determine when a Cheddar curd was ready for:—
   (*a*) Pitching,
   (*b*) Drawing whey,
   (*c*) Grinding?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY AND WEDNESDAY, SEPTEMBER 9TH, 10TH AND 11TH, 1935.

EXAMINER:
W. LAWSON.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. To obtain a Grade "A" Licence, a milk producer must comply with certain requirements in respect of:—
   (*a*) Health of cows,
   (*b*) Bacterial content of milk.
   Describe these requirements.

2. What are the main factors influencing the fat content of milk?

3. Give a few causes for milk becoming tainted.

4. What conditions would you observe to get the best results with a cream separator?

5. What changes take place during the ripening of cream? What tests would you apply to determine when cream is ready for churning?

6. Compare the merits and demerits of obtaining butter from:—
   (*a*) Whole milk,
   (*b*) Sweet cream,
   (*c*) Ripened cream.

7. What is the moisture content of good butter? How can you influence the water content?

8. Describe in detail how you would preserve butter by dry salting.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY AND WEDNESDAY, SEPTEMBER 9TH, 10TH AND 11TH, 1935.

EXAMINER:
W. LAWSON.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Discuss briefly the advantages and disadvantages of milking by machinery as compared with milking by hand.

2. What is the presumptive standard for the composition of milk? What practical steps can a farmer take to produce a milk of high quality as regards butterfat and solids not fat?

3. State briefly what you know of the influence of type and condition of soils on the quality of milk for cheesemaking purposes.

4. Why is it necessary to get a certain degree of acidity before the rennet is added to milk to be converted into Cheshire cheese?

5. Describe the physical features which indicate the degree of ripeness in hard pressed cheese. What factors influence the time of ripening?

6. You are given a dairy of 30 cows and required to make cheese from 1st May to 30th September; state :—
    (*a*) Type of cheese you would make,
    (*b*) The equipment you would require,
    (*c*) The weight of cheese you would expect to produce.

7. What are the common causes which make a Cheddar cheese appear too dry?

8. Why is salt added to curd? Under what circumstances would you vary the quantity used?

The British Dairy Farmers' Association

PRESIDENT, 1936.—H.R.H. THE DUKE OF KENT, K.G.

VICE-PRESIDENTS.

Earl of Iveagh, C.B., C.M.G., 11, St. James's Square, S.W. 1.
Earl of Lonsdale, K.G., G.C.V.O., Lowther, Penrith.
Viscount Bledisloe, P.C., G.C.M.G., K.B.E., Lydney Park, Glos.
Major Lord O'Hagan, 16, Eaton Square, London, S.W. 1.
Lord Desborough, K.G., G.C.V.O., Taplow Court, Taplow, Bucks.
Lord Strachie, P.C., Sutton Court, Pensford, Bristol.
Lord Daresbury, C.V.O., Walton Hall, Warrington.
Lord Rowallan, Rowallan, Kilmarnock.
S. Palgrave Page, J.P., 27, Oakwood Court, London, W. 14.
G. Titus Barham, Sudbury Park, Wembley, Middlesex.
John Evens, J.P., Burton, Lincoln.

COUNCIL.

The President. The Vice-Presidents.

Barnett, J., Brindley Farm, Nantwich.
Bowes, Mrs. M., 14, Thornhill Terrace, Sunderland.
Briggs, Capt. W., St. Clere, Kemsing, Sevenoaks, Kent.
Brocklehurst, W. S., J.P., Grove House, Bedford.
Clare, A. J., J.P., Market Place, Wells, Somerset.
Codd, J. F., Hooklands Estate, Scaynes Hill, Haywards Heath, Sussex.
Corrie, Harold, Heath House Farm, Lowfield Heath, Surrey.
Edwards, Sidney, Tynewydd, Castleton, Cardiff.
Evans, R. H., B.Sc., Barclays Bank Chambers, Pwllheli, Carnarvonshire.
Evens, John, Junr., Burton, Lincoln.
Farmer, J. T. H., Devonia, Cippenham, Slough.
Golding, W. J., Bowens, Penshurst, Kent.
Goode, C. N., The Croft, Bedford Road, Rushden, Northants.
Hobson, W. H., Noyna Mede, Nantwich.
Jervoise, Mrs. B., Herriard Park, Basingstoke.
Jessop, W. F., Thomley Hall, Aylesbury, Bucks.
Lamb, Sir Joseph Q., J.P., M.P., Oaklands, Eccleshall, Staffs.
Mackintosh, James, National Institute for Research in Dairying, Shinfield.
Martlew, T., Fairway, The Close, Harpenden, Herts.
Nell, Capt. W. A., Fir Island, The Ridgeway, Mill Hill, London, N.W.7.
Oliver-Bellasis, Capt. R., J.P., Shilton House, Coventry.
Pegler, H. S. Holmes, Coombe Bury, Foley Road, Claygate, Surrey.
Reeves, Mrs. M., Knapp House, Clevedon, Som.
Robinson, H. G., Midland Agricultural College, Sutton Bonington.
Sadler, James, J.P., Brassey Hall, Willaston, Nantwich.
Sanderson, F. H., Eshott Hall, Felton, Northumberland.
Sankey, G. C., Down Lodge, Fairlight, Hastings.
Shanks, Robert, Halland Park, East Hoathly, Sussex.
Stanbury, P., Newton Barton, Drewsteignton, Exeter.
Stapleton, J. G., Owles Hall, Crews Hill, Middlesex.
Steel, J., Manor Farm, Grazeley, Reading.
Strutt, G. M., New House, Terling, Chelmsford.
Sutton, E. P. F., Erlegh Park, nr. Reading.
Walker, Eldred G. F., The Hollies, Chew Stoke, Somerset.
White, S. T., Sock Dennis Farm, Ilchester, Taunton.
Worsley, P. H., Farmington, Northleach, Glos.

Delegates of Affiliated Societies.

Amalgamated Master Dairymen, Limited :
Evans, J. Morgan, 2a, Oxford Road, Ealing, London, W.5.

Ayrshire Cattle Herd Book Society :
Thompson, W. A., Larkenshaw, Chobham, Surrey.

British Friesian Cattle Society :
Gilbert, F. W., The Manor, Chellaston, Derby.

British Goat Society :
Palmer, T. W., 10, Lloyd's Avenue, London, E.C. 3.

British Kerry Cattle Society :
Steel, N. R., Hookland Estate, Scaynes Hill, Haywards Heath.

Cambridgeshire and Isle of Ely Agricultural Society :
Martin, H. G., Littleport, Ely.

City of Liverpool and District Cow Keepers' Association :
Foster, John W., Newstead Farm, Woolton, Liverpool.

Dairy Shorthorn (*Coates's Herd Book*) *Association* :
Harrop, Capt. N. M., Garthgynan, Ruthin, N. Wales.

English Guernsey Cattle Society :
Rubeck, O. P., Valencia, Meath Green, Horley, Surrey.

National Association of Creamery Proprietors and Wholesale Dairymen, Inc.
Gosney, G. F., Room 234, Shell Mex House, Victoria Embankment, W.C.2.

Poultry Club :
Watts, Col. H., O.B.E., Haslington Hall, Crewe.

Red Poll Cattle Society :
Burrell, Capt. W. R., Knepp Castle, Horsham, Sussex.

South Devon Herd Book Society :
Willing, T., Bulleigh Barton, Ipplepen, Newton Abbott.

Trustees.

Viscount Bledisloe, P.C., G.C.M.G., K.B.E., Lydney Park, Gloucestershire.
Lord Daresbury, C.V.O., Walton Hall, Warrington, Lancs.
S. Palgrave Page, J.P., 27, Oakwood Court, London, W. 14.

Consulting Analytical Chemist and Dairy Bacteriologist.

T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.,
28, Russell Square, London, W.C. 1.

Consulting Veterinary Surgeon.

Professor G. H. Wooldridge, Royal Veterinary College, London N.W. 1.

Solicitors.

Gregory Rowcliffe & Co., 1, Bedford Row, London, W. C. 1.

Auditor.

Herbert J. Page, 36, Walbrook, London, E.C. 4.

Bankers.

Lloyds Bank Ltd., 222, Strand, London, W.C. 2.

Secretary.

Frederick J. Bull, 28, Russell Square, London, W.C. 1.

STANDING COMMITTEES, 1936

The President and Vice-Presidents are ex-officio Members of all Committees.

FINANCE AND GENERAL PURPOSES.

Mr. J. G. Stapleton
(*Chairman*).
,, W. S. Brocklehurst.
,, Sidney Edwards.
,, R. H. Evans.
Mr. J. T. H. Farmer.
,, W. J. Golding.
,, W. H. Hobson.
,, W. F. Jessop.
Sir Joseph Q. Lamb, M.P.
Capt. W. A. Nell.
Capt. R. Oliver-Bellasis.
Mr. T. W. Palmer.
,, H. S. Holmes Pegler.
Capt. G. C. Sankey.
Mr. R. Shanks.

EDUCATION, JOURNAL, AND MEDAL SCHEME.

Mr. R. H. Evans
(*Chairman*).
Mrs. M. Bowes.
Capt. W. Briggs.
Mr. A. J. Clare.
,, J. F. Codd.
Mr. S. Edwards.
Mrs. Jervoise.
Mr. J. Mackintosh.
,, T. Martlew.
Mrs. M. Reeves.
Mr. H. G. Robinson.
Mr. J. Sadler.
Capt. G. C. Sankey.
Mr. R. Shanks.
,, J. Steel.
,, E. G. F. Walker.

Mr. Alec Todd and Dr. T. J. Drakeley, *ex-officio.*

CATTLE DISEASE AND EPIDEMIC.

Mr. J. Barnett.
,, J. F. Codd.
,, J. Evens, Junr.
,, J. T. H. Farmer.
Mr. F. W. Gilbert.
,, W. H. Hobson.
,, J. Mackintosh.
,, J. Sadler.
,, R. Shanks.
Mr. J. G. Stapleton.
,, J. Steel.
,, E. G. F. Walker.
,, S. T. White.

CONFERENCE.

Capt. G. C. Sankey.
(*Chairman*).
Mr. R. H. Evans.
,, John Evens, Junr.
,, J. T. H. Farmer.
Mr. G. F. Gosney.
,, W. H. Hobson.
Mrs. Jervoise.
Capt. W. A. Nell.
Mrs. M. Reeves.
Mr. J. Sadler.
,, J. Sanderson.
,, P. Stanbury.
,, G. M. Strutt.
,, E. G. F. Walker.

POULTRY AND PIGEON.

Mr. W. S. Brocklehurst
(*Chairman*).
,, J. H. Brown.
,, C. M. Cooper.
,, H. Corrie.
,, G. E. Danks.
Mr. C. N. Goode.
,, W. J. Golding.
,, W. F. Holmes.
,, W. H. Johnston.
,, H. N. Leighton.
Mr. A. J. Major.
,, F. H. Page.
,, W. A. Smith.
,, A. C. Tattersall.
Mr. J. Taylor.

SELECTION OF JUDGES, &c.

Mr. J. Barnett.
Mrs. M. Bowes.
Mr. S. Edwards.
,, J. T. H. Farmer.
,, F. W. Gilbert.
Mr. W. H. Hobson.
,, W. F. Jessop.
,, H. S. Holmes Pegler.
Mrs. M. Reeves.
Mr. J. Sadler.
Mr. R. Shanks.
,, P. Stanbury.
,, G. M. Strutt.
,, E. G. F. Walker.
,, S. T. White.

BRITISH DAIRY INSTITUTE JOINT.

*Mr. S. Edwards.
(*Chairman*)
*Dr. T. J. Drakeley.
*Mr. W. F. Jessop.
†Prof. H. D. Kay.
†Mr. J. Mackintosh.
†Prof. H. A. D. Neville.
*Mr. T. W. Palmer.
†Prof. R. Rae.
*Capt. G. C. Sankey.
†Mr. A. P. Shaw.
†Dr. T. F. Sibly.
*Mr. J. G. Stapleton.
* ,, J. Steel.
† ,, L. N. Sutton.

* Representing British Dairy Farmers' Association.
† Representing University College, Reading.

PARLIAMENTARY.

(To consist of Members of the Council in both Houses of Parliament and the Chairman of each Standing Committee, with power to add to their number.)

The British Dairy Farmers' Association

LIST OF MEMBERS

A. 1 AND DOLLIS DAIRIES, LTD. (represented by F. J. de Rivaz), High Road, Whetstone, N. 20.
Abbey, Mrs. Arthur, Downe Hall, Roydon, Essex (L.M.).
Abbey, W. R., & Son, Croft Farm, Hessay, Yorks.
Abbot Bros. (represented by J. Morris Abbot), Thuxton, Norfolk.
Abbott, W. J., Troll House, Horsham, Sussex.
Abbotts, Miss L., Hill View, Broughton Road, Banbury, Oxon.
Ackers, Major Charles P., Huntley Manor, Gloucester.
Acland, Rt. Hon. Sir Francis D., Bart., P.C., M.P., Sprydoncote, Exeter.
Adams, Hon. Mrs. C. M. L., Bradfield, Willand, Cullompton, Devon.
Adams, W. J., Broomhurst Farm, Fleet, Hants.
Adamson, W., Harleyholm, Thankerton, Lanarkshire.
Adcock, Mrs. V. M., Grenehurst Park, Capel, Surrey.
Adlercron, Brig.-Gen. R. L., C.M.G., D.S.O., Culverthorpe, Grantham.
Alexander, Mrs. E., Old Wilsley, Cranbrook, Kent.
Alexander, G. C., Manor House, Winterbourne Stoke, Salisbury.
Alexander & Angell (represented by G. S. Alexander), Cranham Corner, Cranham, Gloucester.
Alfa-Laval Co., Ltd. (represented by C. B. T. Hembry), Great West Road, Brentford.
Allan, A. Y., Aitkenbar, Dumbarton.
Allday, C. J., Fotheringhay Manor, near Peterborough.
Allen, A. D., Rawlings Farm, Seer Green, near Beaconsfield, Bucks.
Allen, H. C., Brick House Farm, Burwash, Sussex.
Allsup, Miss E., Whittingham Hall, near Preston, Lancs.
Allsup, J., Whittingham Hall, near Preston, Lancs.
Alpass, J. R. J., Manor House, Berkeley, Glos.
Aluminium Plant & Vessel Co., Ltd. (represented by J. W. Wilson), Point Pleasant, Wandsworth, S.W.18.
Anderson, Sir John, Bart., St. James's Court, Buckingham Gate, S.W.1.
Anderson, J. H., Ministry of Agriculture, Regent Street, Cambridge.
Andrew, J. M., County Council Farm, Hutton, Preston, Lancs.
Andrews, A., Little Ropers, Shawford, Winchester.
Andrews, A. G., Hatfield, Leominster, Herefordshire.
Andrews, Miss M. E., Chalvington Manor, Hellingly, Sussex.
Anjaria, D. H., State Dairy and Poultry Farm, Devgad Baria, Bombay, India.
Ann's Farm House Ltd. (represented by K Masten), Cropwell Bishop, Notts.
Anslow, Lord, Bangors Park, Iver, Bucks. (L.M.).
Appleyard, R., Priory Farm, Ixworth, Bury St. Edmunds.
Ardern, Lawrence (L.M.).
Argent, W. A., "Miramar," Mevagissey, Cornwall.
Arkwright, B. H. G., Brockwood Park, Alresford, Hants.

Arnold, T. G., 314, Warwick Road, Solihull, Warwickshire.
Arthurs, E. G., Hartpury, Gloucester.
Ashton, H. S., Trueloves, Ingatestone, Essex.
Ashton, Lt.-Col. S. E., Scotsgrove House, Thame, Oxon.
Assheton, R. C., Downham Hall, Clitheroe, Lancs. (L.M.).
Astley, Reginald B., The Milebrook, Bucknell, Shropshire, (L.M.).
Astor, Viscount, Cliveden, Taplow, Bucks.
Atherton, W. R., 100, Evering Road, Stoke Newington, N.16.
Atkins, Lt.-Col. E. C., Stretton House, Stretton Baskerville, Hinckley.
Atkinson, H., Park Pedigree Poultry Farm, Park, Donyatt, Ilminster.
Atkinson, R. L., 10 & 12, Hotel Street, Leicester.
Atkinson, T. C. D., Perkins Clean Milk Equipment Co., Ltd., 58 Nottingham Road, Derby.
Aveling-Barford, Ltd. (represented by Wm. G. Barford), Grantham.
Ayre Brothers (represented by A. Lickiss), The Avenue, High Street, Hull.

BADDILEY, T., Kelton Forest Farm, Worksop.
Bailey, John, Hullbrook, Shamley Green, Guildford.
Bailey, R. G., 148, Audrey House, Ely Place, London, E.C.1.
Baird, John, Birnieknowe, Auchinleck, Ayrshire.
Baker, A. J. P., Woodrow Farm, Uffcolme, Devon.
Baker, Charles, Delegarde Farm, Westerham, Kent.
Baker, Philip, Wildmoor, Alcester Road, Stratford-on-Avon.
Ball, Cecil, Market Place, Oakham, Rutland.
Ball, J. H., May Villa, Ribbleton, Preston.
Ball, Miss L. C., Cumberland and Westmorland Farm School, Newton Rigg.
Bally, Miss M. P., County Offices, Haverfordwest, Pem.
Banyard, Richard, Nelmes Farm, Romford, Essex.
Barber, Arthur, Carlton Hall, Worksop.
Barber, Capt. F., Rotherwood Poultry Farm, Balmoral Road, Morecambe.
Barbour, Geo., Auchengibbert, Crocketford, Dumfries.
Barclay, Edward Exton, Brent Pelham Hall, Buntingford, Herts.
Barclay, Lt.-Col. R. W., Bury Hill, Dorking, Surrey.
Barham, Colonel Arthur S., C.M.G., V.D., J.P., Hole Park, Rolvenden, Kent.
Barham, G. Titus, Sudbury Park, Wembley, Middlesex (L.M.).
Barnard, Miss O. M., The Coffee House, Market Place, Wokingham.
Barnes, George, Hatherleigh, Wincanton.
Barnes, Henry, 25, St. Quintin Avenue, North Kensington, London, W.10.
Barnett, A., Rose Farm, Worleston, Nantwich.
Barnett, H., Overton Hall, Malpas, Cheshire.
Barnett, J., Brindley Farm, Nantwich.
Barnett, J. C., The Hulby, Tybroughton, Whitchurch, Salop.
Bartlett, S., National Institute for Research in Dairying, Shinfield, nr. Reading.
Barton, E. G., Saundby, Retford, Notts.
Bastard, William, Woodlands, Barkby, Leicester.
Bateman, Mrs. E. E., Sherbourne House, Allesley, Coventry.
Bates, O.F., Ltd. (represented by F. J. Broomhead), 71, Fleet Street, E.C.4.
Batho, F., Greenbank, Gobowen, Salop.
Bathurst, Lt.-Col. The Hon. B., 38, Lower Belgrave Street, London, S.W.1.
Batten, E. J., Sanatorium Farm, Nayland, Suffolk.
Batten, O. A., Cralle Place, Vines Cross, Sussex.
Baxendale, Lt.-Col. J. F. N., Froxfield Green, Petersfield, Hants.
Bayley, Mrs. C., Willaston Hall, Nantwich.
Bayman, P. A., Shenfield Place, Shenfield, Essex.
Beatty, A. Chester, Calehill Park, Little Chart, Kent. (Agent: F. Watson).
Beatty Bros., Ltd. (represented by W. J. Martin), Park Royal Road, N.W.10.
Beaufort, Duke of, Badminton, Glos.
Beckett, John, Rode Heath, Stoke-on-Trent.

Beckett, T. E., Hall o'Coole, near Nantwich, Cheshire.
Bedford, Geo. Smith, 22, The Forbury, Reading.
Beer, W. R., Pill Dairy, Newport Road, Barnstaple.
Belbin, C. N., Nortonthorpe Hall, Huddersfield.
Bell, W. E. D., 167, Gloucester Terrace, Hyde Park, London, W. 2.
Bellamy, Douglas R., Sandfield, Chislehurst, Kent.
Bennion, Miss Nellie, Cheshire School of Agriculture, Reaseheath, Nantwich.
Bentall, C. E., Five Corners, Wickham Bishops, Essex.
Bentall, E. E., The Old Rectory, Wickham Bishops, Essex.
Benyon, H. A., Ufton Court, near Reading.
Berkeley, R. G. W., Spetchley Park, Worcester.
Berks. Co-operative Poultry Producers, Ltd. (represented by J. F. Wood), Birchdene, Finchampstead Road, Wokingham.
Berry, Grosvenor, Mount Bures, Bures, Suffolk.
Bethell, G., Crown Works, Boundary Place, Liverpool 7, Lancs.
Betts, Walter, Folwer Mill, Charlbury, Oxon.
Bicol, Ltd. (represented by R. Stockil), Riby Street, Grimsby.
Bill, Ernest E., New Mills Dairy, Ledbury, Herefordshire.
Billyard-Leake, Comdr. E. W., Hollybush House, Hollybush, Ayrshire (L.M.).
Bingley, Lord, Bramham Park, Boston Spa, Yorks.
Birchall, Miss E., 135, Manchester Road, Lostock-Gralam, Northwich, Cheshire.
Birkbeck, Major H. A., Westacre Abbey, King's Lynn (L.M.).
Birkett, J. T., Cowgate Dairy Farm, Newcastle on-Tyne.
Birley, E. H., Manor Farm, Bledington, Kingham, Oxon.
Birmingham Dairy Co., Limited (represented by W. T. Harrison), Dalton Street, Birmingham.
Birmingham Ham & Bacon Curing Co. (represented by M. N. Claddo), 35, Birmingham Road, Sutton Coldfield.
Birnstingl, C., Compton Farm, Compton Bassett, Calne, Wilts.
Black, Miss M. E., Reaseheath, Nantwich, Cheshire.
Black, Sir R. A. S., Bart., Midgham Park, Reading (L.M.).
Blackburn, Miss E. M., Cumberland and Westmorland Farm School, Newton Rigg, Penrith.
Blackett, S., Bunkers Hill Farm, Boughton, Northampton.
Blackshaw, J. F., The Elms, Whitchurch, Shropshire.
Blackwell, G., Strand Lodge, Epsom Downs, Surrey.
Bland, G. R., County Offices, Oxford.
Bledisloe, Viscount, P.C., G.C.M.G., K.B.E., Lydney Park, Gloucestershire (L.M).
Blewitt, G., Boxted Hall, Colchester.
Blow, J. J., 10/12, Phœnix Place, London, W.C.1.
Blundell, Stanley, Green Gore, Battle, Sussex.
Bohrmann, A. H. L. (L.M.).
Bolesworth Trust Co., Bolesworth Castle, Tattenhall, Chester.
Bolitho, Lt.-Col. E. H. W., Trengwainton, Heamoor, Cornwall.
Bolton, Herbert James, Waltham Cross, Hertfordshire.
Bond, A. E., Lloyds Bank Chambers, New Street, Birmingham (L.M.).
Bone, John, Sheepcotes, Little Waltham, Chelmsford.
Booth, G. W., Ion Farms, Lower Gravenhurst, Ampthill, Beds.
Booth, Miss C. A. M., Yore Croft, Ripon, Yorks.
Borlase, W. J., Wootton Manor, Henley-on-Thames.
Boscawen, Lady Margaret F. L., Mount Street, London, W. 1.
Bostock, E., Gibbet Hill, Kenilworth, Warwickshire.
Bostock, Harold S., Haslington, Crewe.
Bourne, T., Baddington, Nantwich, Cheshire.
Boutflour, R., B.Sc., Royal Agricultural College, Cirencester.
Bowen-Colthurst, Miss H. G. B., Vernons, Chappel, near Colchester.
Bowen-Colthurst, Miss P. de B., Layer-de-la-Haye, Colchester.
Bowers-Taylor, Miss E., Lancs C.C. Dairy School, Hutton, near Preston.

Bowes, Mrs. M., 14, Thornhill Terrace, Sunderland (L.M.).
Bowser, Benjamin G., Scothern Manor, Lincoln (L.M.).
Bowyer, C., Whitelocks Farm, Warfield, Berks.
Bradford, William L., Pendleton, Manchester, Lancs.
Bradridge, T., Park Gate, Gt. Bardfield, Essex.
Bradshaw, Mrs. C., Bystock, near Exmouth, Devon.
Bradshaw, S. G., 6, Western Road, Hove, Sussex.
Brander, Miss Anna E. L. (L.M.).
Brassey, Sir Leonard, Bart., 42, Upper Grosvenor Street, London, W. 1.
Brassey, Capt. R. B., J.P., Cottesbrooke Hall, Northampton (L.M.).
Bray, Miss Evelyn, County Education Office, The Castle, Exeter.
Brazier, H., Ley House, Grandborough, Winslow, Bucks.
Brazil, W., Kidmore Game Farm, Kidmore, near Reading.
Brereton, H., Worthenbury, Wrexham.
Brickell, A. G., Lower Farm, Westcombe, Evercreech, Somerset.
Briggs, Capt. William, St. Clere, Kemsing, Sevenoaks, Kent.
Brindley, Frank, Cottage Farm, Sandybrook, Ashbourne, Derbyshire.
Brinkler, Osborne & Young, Ltd. (represented by R. E. Goodfellow), Coldharbour Lane, Brixton, S.W. 9.
Brise, A. W. Ruggles, Spains Hall, Braintree, Essex.
British Drug Houses, Ltd. (represented by P. J. Thompson), Graham Street, London, N. 1.
British Metal Crates, Ltd. (represented by H. B. Shepherd), Talbot Mill, Ellesmere Street, Manchester.
British Oil & Cake Mills, Ltd. (represented by J. C. Lynn, M.Sc.), Cleveland Street, Hull.
British Sulphate of Ammonia Federation, Ltd. (represented by Sir David Milne-Watson, LL.D., D.L.), 28-30, Grosvenor Gardens, S.W. 1.
Brittain, Arthur, Townsend Farm, Steppingley, Bedford.
Brittain, Miss M., Seale-Hayne Agricultural College, Newton Abbot, Devon.
Brittlebank, Col. J. W., C.M.G., M.R.C.V.S., D.V.S.M., Allied Dairies, Ltd. 32/52, Gartside Street, Deansgate, Manchester.
Britton-Harvey, A. W., 66, St. Lawrence Avenue, Worthing.
Brocklehurst, W. S., J.P., Grove House, Bedford.
Brockliss, W., Church House, Church Street, Yeovil.
Brook, Lt.-Col. Charles, Kinmount, Annan (L.M.).
Brooks, C. A., The Lecture House, Dedham, Colchester.
Brooks, C. H., Park Lodge, Mistley, Essex.
Broom, T. W., Sondes Place Farm, Dorking, Surrey.
Broome, A., & Sons (represented by W. A. Broome), Preston Brook, Cheshire.
Broughton J. F., Yeabridge, South Petherton, Somerset.
Brown, Alexander, Station Farm, Southleigh, Witney, Oxon.
Brown, A. O., Cowley Farm, Ashton, Exeter.
Brown, Admiral F. C., C.B., C.M.G., Stamford Place, Faringdon, Berks.
Brown, Brig.-Gen. H. Clifton, M.P., Holmbush, Faygate, Sussex.
Brown, J. A., Cormiston Towers, Biggar, Lanarkshire.
Brown, James A., 31, Bridge Street, Bristol.
Brown, J. Haldane, 33, Sylvan Grove, Peckham, S.E. 15.
Brown, J. H., Home Farm, Woodseaves, Stafford.
Brown, John H., Shrewbridge House, Nantwich, Cheshire.
Brown, Oscar C., Appleby, Lincolnshire.
Brown, Robert B., 77, Portland Street, Kilmarnock.
Brown, T., The Grove, Kent's Green, Haslington, Crewe.
Brown, W., Polar Works, Manchester Road, Wilmslow, near Manchester.
Brown, Wm. C., Alpha, Stonehouse Estate, Halstead, Sevenoaks.
Brunt, S. R., Sudlow Farm, Knutsford, Cheshire.
Brunton, W., Tollesby Farm, Marton-in-Cleveland.
Bryan & Paton, Ltd. (represented by F. Bryan), 28/30, Paternoster Row, E.C.1.

Bryan, Robert (W. Cary & Sons), Shepton Mallet, Som.
Bryant, W. G., Street Farm, Bovingdon, Boxmoor.
Buchanan-Jardine, Sir John, Bart., Castle Milk, Lockerbie, N.B. (L.M.).
Buckland, Sidney C., Windsor.
Buckler, F., 42, Sheepcote Lane, Garston, Watford.
Bucknell, T. B., Beenhams Farm, Waltham St. Lawrence, Berks.
Bucknell, J., & Sons (represented by Mrs. Jane Bucknell), Priory Farm, Beech Hill, Reading (L.M.).
Budd, Lady, Burley Hill, Ringwood, Hants.
Buist, H. M., 9 and 10, Gardnor Mansions, Church Row, N.W. 3 (L.M.).
Bull, A. C., County Dairy School, Sutton Veny, Warminster.
Bull, Mrs. Ida M., The Offices, Sutton Veny, Warminster.
Bullivant, Percy, Tunworth, Basingstoke.
Burbidge, J. D., Timberscombe, Solihull, Warwickshire (L.M.).
Burbidge, Sir Woodman, Bart., Cisswood, Lower Beeding, Horsham.
Burdett-Coutts, S., Earls Place, Mark Cross, near Tunbridge Wells.
Burdon, Col. Rowland, J.P., Castle Eden, Co. Durham.
Burfitt, L. A., Hurley Farm, Hurley, Maidenhead, Berks.
Burge, Joseph R., Itchen Down, Itchen Abbas, near Winchester.
Burgess, Frank, Corra Common, Calverhall, Whitchurch, Shropshire.
Burrell, Lt.-Col. Sir Merrik R., Bart., C.B.E., Knepp Castle, Horsham.
Burrell, Capt. W. R., Knepp Castle Estate Office, Horsham.
Bush, B. S., Crockham Hill Farm, Edenbridge, Kent (L.M.).
Bush, John H., Peart Farm, Norton St. Philip, Bath.
Butchart, Miss N. C., Department of Agriculture, The University, Leeds.
Butcher, W., Ecclesden Manor, Angmering, Sussex.
Butler, S. E., Horn's Farm, Eversley, Hants.
Butt, Capt. P. Lovell, D.S.O., Summerlands, Cranleigh, Surrey.
Butter, Col. C. A. J., Cluniemore, Pitlochry, Perthshire.
Button, Mrs. A. M., Park Farm Quarry, Maplehurst, near Horsham, Sussex.
Buxton, Capt. R. G., Petygards, Sporle, King's Lynn.
Buxton, Major G. J., Tockenham Manor, Wootton Bassett, Wilts.
Buxton, Sir T. Fowell, Bart., J.P., Woodredon, Waltham Abbey (L.M.).
Buzzard, Brig.-Gen. F. A., West Haxted Farm, Edenbridge, Kent.
Bysshe, W. M., 35, Carlisle Mansions, Carlisle Place, London, S.W. 1.

CADDEY, G. J., Manor Farm, Egham, Surrey.
Caddey, Mrs. G. J., Manor Farm, Egham, Surrey.
Caillard, Miss G. L., Devon Banks, West Hill, Ottery St. Mary, Devon.
Cain, Sir Ernest, Bart., Wargrave Manor, Wargrave, Berks.
Caldwell, Miss I., Heatherdown, Totland Bay, I. of W.
Caldwell, James, Moorfield, Kilmarnock.
Calley, Miss J. M., Burderop Park, Swindon.
Calthrop Bros., Ltd. (represented by G. A. Squirrell), Naylor Street, Liverpool.
Calvert, Mrs. C. M. L., Banwell Castle, Banwell, Som.
Calvert, Horatio, Bourne Place, Hildenborough, Kent (L.M.).
Campbell, R. G., Great Hollanden, Under River, near Sevenoaks, Kent.
Cannell & Sons (represented by F. J. Cannell), Hardley, near Loddon, Norfolk.
Cannon, R. N., Mill Farm, Bexley, Kent.
Capstick, E. (Messrs. Aplin & Barrett), Staplemead Dairy, Frome, Som.
Carrington, H. B., Blacklands, Crowhurst, Sussex.
Carter, A. E., Brook House, Great Baddow, Essex.
Carter, F. J., Gardener's Farm, Baddow Road, Chelmsford.
Carter, J. H., 3, Norfolk Road, Horsham, Sussex.
Carter's Tested Seeds, Ltd. (represented by G. Beale), 129, High Holborn, W.C. 1.
Carver, P. W., Courtlands, Sharpthorne, East Grinstead.
Cash, T. E., Brockhill Farm, Redditch, Worcs.

Castle, J. E., Curbridge Farm, Curbridge, Witney, Oxon.
Cataline Co., Ltd. (represented by J. H. Fursdon), Bristol.
Caunt, James, 35, High Street, Lewes.
Cavers, A. S., Yorkshire Agricultural Society, St. Leonard's, York.
Cearn, Miss Beryl, Gatwick Farm, Upper Gatton, Reigate.
Cearn, C. H., Gatwick Farm, Upper Gatton, Reigate.
Cecil, Lady Arthur, Spreacombe Manor, Braunton, N. Devon.
Chadburn, C. W., Papplewick Hall, Nottinghamshire.
Chadwick, W. H., Winterdale Manor, Althorne, Essex.
Chalk, Vernon Beecher, Beckenham, Kent.
Chalker, J. W. S., Hinton Farm, Hurst, Twyford, Berks.
Champion, R. W., Redroof, West Town Lane, Knowle, Bristol.
Chaplin, Col. J.
Chapman, Frederick, Moorpark Farm, Harrogate.
Chapman, Miss F., High Cross House, Hill Top, Knottingley, Yorks.
Charlton, J. U., San Remo, Stroud Road, Gloucester.
Cheke, Miss V. E., The Cockpit, Fairoak, Hants.
Cherry-Burrell, Ltd. (represented by F. Rodgers), 102, Great Saffron Hill, London, E.C. 1.
Chesham, Lady, Latimer, Chesham, Bucks.
Chick, W. D., Compton Valence, Frampton, Dorchester, Dorset.
Chillingworth, C. A., Barton Farm, Siddington, Cirencester, Glos.
Chisholm, Mrs. H., Chequers Home Farm, Princes Risborough, Bucks.
Chiswick Products, Ltd., Burlington Lane, Chiswick, W. 4.
Chivers & Sons, Ltd. (represented by John Stanley Chivers), Histon, Cambs.
Christie, Capt. J., M.C., Glyndebourne, Ringmer, Lewes.
Clapham, G., Bowbrook, Shrewsbury.
Clare, A. J., J.P., Market Place, Wells, Somerset.
Clark, Thomas, Beeches Farm, Botcherby, Carlisle.
Clarke, E. W., Chilborough House, Aylesbury, Bucks.
Clarke, R. W., 14, Richmond Hill, Richmond, Surrey.
Clarke, Lt.-Gen. Sir Travers E., G.B.E., K.C.B., K.C.M.G., 22, Sloane Gardens, S.W. 1.
Clarke, Col. Stephenson R., C.B., J.P., Borde Hill, Cuckfield, Sussex.
Classey, L., 30, Woodborough Road, Putney, London, S.W. 15.
Clay, Col. H. H. Spender, C.M.G., Ford Manor, Lingfield, Surrey.
Clayton, G. S., St. Anne's Works, St. Anne Street, Limehouse, E. 14.
Clement, Sir Thomas, 27, South Albion Street, Glasgow.
Clement Estates Co. (represented by T. G. Clement), Howwell, Kirkcudbright.
Clifton-Brown, E., J.P., Burnham Grove, Burnham, Bucks, (L.M.).
Cloke, G. E., Kingsbury Manor, Kenton Road, London, N.W. 9.
Cochrane, A., Nether Craig, Kilmarnock (L.M.).
Cochrane, John, Byreholm, Thornhill, Dumfriesshire (L.M.).
Cochrane, M., Catlins, Lockerbie, Dumfriesshire.
Cock, F. H., Prestbury Park, Cheltenham.
Cockx & Sons (represented by A. Cockx), Northwold Buildings, Northwold Road, Stoke Newington, London, N. 16.
Codd, J. F., Hooklands Estate, Scaynes Hill, Haywards Heath.
Coghurst Estates, Ltd. (represented by F. W. Weston), Coghurst Hall, Hastings.
Cohen, Miss C. E., Alma Cottage, Didmarton, Badminton, Glos.
Cohen, Lt.-Col. C. Waley, C.M.G., Nyton, Aldingbourne, near Chichester.
Cole, Mrs. B., Kingsfield Poultry Farm, Chalfont St. Giles, Bucks.
Cole, G. H., Gt. Slaucombe, Moretonhampstead.
Cole, G. R., Home Farm, Over Compton, Sherborne.
Cole, W. E., 28, Norfolk Lane, Sheffield.
Colebrook, W. M.
Collet, Sir Mark E., Bart., St. Clere, Kemsing, Sevenoaks.
Collett, Miss Phillis C., The Cove, Torcross, Kingsbridge, S. Devon.

Collins, C., 18, Victoria Place, Stranraer.
Collins, Rev. R. L., St. Luke's College, Exeter.
Collins, W. H., Whitehouse Farm, Bruton, Somerset.
Colnett, Miss A., County Education Office, Shire Hall, Gloucester.
Colombe, A., Newlands Egg Farm, Kidmore End, near Reading.
Colston Bassett & District Dairy, Ltd. (represented by A. W. Tinsley), Colston Bassett, near Nottingham.
Colt, W. H., Ltd., Bush House, Aldwych, London, W.C. 2.
Coltman, Miss M.
Combes, Daniel, Dinton Manor, Salisbury.
Compton, A. H., 136, Kensington Park Road, London, W. 11 (L.M.).
Comyns-Lewer, Mrs. E., Longcroft, Aldeburgh, Suffolk.
Constable, Miss G. G. L., Sotherton Hall, Wangford, Beccles, Suffolk.
Cookson, E. A., Minshull Hall, Middlewich.
Cooper, Cecil M., Deerswood, Ifield, Sussex.
Cooper, Major R. W., Tackley Park, Oxfordshire.
Cooper, Sir George A., Bart., Hursley Park, Winchester. (Agent: T. W. Ashton, Estate Office, Hursley Park, Winchester, Hants.).
Co-operative Wholesale Society, Ltd. (represented by A. A. Scott). All communications to A. Partington, Expenses Department, 1, Balloon Street, Manchester.
Co-operative Wholesale Society, Ltd. (represented by R. F. Lancaster). All communications to A. Partington, Expenses Department, 1, Balloon Street, Manchester.
Coote, Col. Charles H. Eyre, Highgate House, Creaton, Northampton.
Cope & Cope, Ltd. (represented by E. G. Whelow), 100, King's Road, Reading (L.M.).
Copley, S. W., Deacons Hill, Elstree, Hertfordshire.
Corfield, Capt. R., Factory Estate, Morden Road, Merton, S.W. 19. (L.M.).
Cornall, Fred, The Hermitage, Holmes Chapel, Cheshire.
Cornish, Mrs. C. J., Steyne, Bembridge, Isle of Wight.
Corrie, Harold, Heath House Farm, Lowfield Heath, Surrey.
Coryton, Capt. J. T., Pentillie Castle, St. Mellion, Cornwall.
Court, Miss M. F., Marisden, London Road, Deal.
Courtauld, Mrs. C. C., Froyz Hall, Halstead, Essex.
Courthope, Col. Sir G. L., Bart., M.P., Whiligh, Sussex.
Cow & Gate, Ltd. (represented by The Secretary), Guildford.
Coward, Miss F., Cumberland & Westmorland Farm School, Newton Rigg, Penrith.
Cowlard, Mrs. P., Stuart Lodge, Appleshaw, Andover.
Cowley, William A., Ovingdean Grange, near Brighton, Sussex.
Cowpe, J., Fir Trees Farm, Goosnargh, near Preston.
Cox, E. S., 31, Alexandra Road, Reading.
Cox, Harry T., Bishops Stortford Dairy Farms, Bishops Stortford, Herts.
Cox, Miss E. Lillian, Chewton Field Farm, Chewton Mendip, Bath, Somerset.
Cox, R. J., 113, Peters Court, Bayswater, London, W.2.
Crabtree, James, 25-39, Price Street, Birkenhead, Cheshire (L.M.).
Cragg, Miss K., Monmouthshire Agricultural Institute, Usk, Mon.
Craig, John, Goat Farm, Ringmer, Lewes, Sussex.
Craig, W. E., Green Farm, Burghfield, Reading.
Cranfield, H. T., Midland Agricultural College, Sutton Bonington, Loughborough.
Cranworth, Lord, Grundisburgh Hall, Suffolk.
Crawford, Lady Gertrude, Coxhill, Lymington, Hants. (L.M.).
Crawford, H. E., The Home Farm, Nonington, Dover.
Crawford, J. B., Hall, Auchencairn, by Castle Douglas.
Crawford, Walter C., Chapmanton, Castle Douglas.
Cray, A. S., The Laurels, Johnstown, Carmarthen.

Creamery Package Manufacturing Co., Ltd. (represented by D. C. North), Avery House, Clerkenwell Green, E.C. 1.
Creed, A. J., Goldicote House, Stratford-on-Avon.
Crewe, Marquis of, P.C., D.C.L., Crewe House, Curzon Street, W. (communications to Prof. W. McCracken, Englesea House, Crewe).
Crittall, Miss Winifred M., Bartrum Gables, Broadstairs.
Crombie, T. A., Estate Office, Bawdsey, Woodbridge, Suffolk.
Cross, Donald, Knockdon, Maybole, Ayrshire.
Cross, J. L., Catthorpe, Rugby.
Crosthwaite, Miss F. G., Springcroft, Spital, Bromborough, Cheshire.
Crowe, John, The Manor, Ashe, Overton, Hants.
Crutcher, G. J., The Woodlands Farm, Newdigate, Surrey.
Cumber, W. J., Theale, Berkshire.
Cundy, J. P., Estover, Crownhill, near Plymouth.
Cupiss, F., Ltd., The Wilderness, Diss, Norfolk.
Curtis, Mrs. C. J., 46, Merton Hall Road, Wimbledon, London, S.W. 19.
Curtis, W., Berwick Manor Farm, Rainham, Essex.

DAIRY, THE (represented by P. E. Miller), 83-85, Farringdon Street, E.C. 4.
Dairy Outfit Co., Ltd. (represented by W. P. Freeth), 251, Pentonville Road, King's Cross, London, N.1.
Dairy Requisites, Ltd. (represented by Capt. B. P. Hornby), 27-31, Caledonian Road, N. 1.
Dairy Supply Co., Ltd. (represented by Capt. C. C. F. Smith, M.C.), Museum Street, W.C. 1.
Dale, J., & B. M., Felhampton Court, Church Stretton, Salop.
Dalrymple-Hamilton, Col. N., Bargany, Girvan, Ayrshire (L.M.).
Dalton, H. A., Bridge Farm, Chawston, Bedford.
Danks, G. E., Carfax, Rotherfield Road, Carshalton, Surrey.
Daresbury, Lord, C.V.O., Walton Hall, Warrington. (Agent: Capt. J. Bainbridge, Walton Estate Office, near Warrington).
Darlington, T., Marshfield Bank Farm, Woolstanwood, Crewe.
Darnhall Dairy (represented by T. Beech), Darnhall, Winsford.
Dartmouth, Earl of, G.C.V.O., 5, Belgrave Place, London, S.W. 1.
Davidson, H. R., Common Lane, Batford, Harpenden.
Davidson, J. D., Glamorgan Agricultural Committee, County Hall, Cardiff.
Davies, Ben, United Daries, Ltd., 34, Palace Court, W.2.
Davies, Mrs. D. M., Eithynog, Buarth, Aberystwyth.
Davies, H. E., 877, High Road, Tottenham, N. 17.
Davies, J. E., 10 & 11, Dukes Road, Tavistock Square, W.C. 1.
Davies, Miss M., Creylos, Heraithog, Ruthin.
Davies, Dr. W. L., National Institute for Research in Dairying, Shinfield, near Reading.
Davis, Colonel W. N., O.B.E., J.P., Brookside, Salt Hill, Slough, Bucks.
Davis, H. E., New Zealand Dairy Produce Board, St. Olaf House, Tooley Street, London, S.E. 1.
Davy, A. Cedric, Paternoster Row, Sheffield, Yorks.
Daws, Mrs. L., Heath Farm, Weeley Heath, Clacton-on-Sea.
Dawson, George (Dawson Bros.), Leeds, Yorks.
Dawson, Miss E. M., 1, College Hill, Shrewsbury.
Dawson, Mrs. J. E. Finch, Burwain Hall, King's Meaburn, Penrith.
Day, Major E. C., Merrington Place, Rolvenden, Kent.
Day & Day (represented by C. T. Day), 1, Rossington Street, E. 5.
Day & Sons (Crewe), Ltd. (represented by G. Berry), Crewe.
Day, Son, & Hewitt, 22, Dorset Street, London, W.1.
Dean, F. W., St. Germain's Farm, St. Albans, Herts.
Dearden, Miss D. V., National Institute for Research in Dairying, Shinfield, near Reading.

Dearnaley, J., London House, Glossop.
Debenham, Miss Alice (representing Messrs. E. R. & A. Debenham), Bladen Dairy Farms, Briants Puddle, Dorchester.
De la Warr, Earl, Fishers Gate, Withyham, Sussex.
Delme-Radcliffe, Lt.-Col. A., D.S.O., (L.M.).
Denchfield, F. T., Manor House, Tingwick, Buckingham.
d'Engelbronner, L. A. d'A., Redleaf, Penshurst, Kent.
Denman, Lady, C.B.E., Balcombe Place, Balcombe, Sussex (L.M.).
Denman, T. H., Netley Court, Netley Abbey, Southampton.
Dennis, Mrs. Cyril, Oakley Hall, Market Drayton, Salop.
Dennis, J. T., Winsor, Yealmpton, Devon.
de Pret Roose, Comtesse E., Ellens, Rudgwick, Sussex.
Derisley & Son (represented by L. R. Derisley), Devonshire House, Byfleet.
Desborough, Lord, K.G., G.C.V.O., Taplow Court, Taplow, Bucks.
de Trafford, Sir H. E., Bart., Newsells Park, Barley, Royston.
de Wackenfelt, M., Swedish Legation, 27, Portland Place, W.1 (H.L.M.).
Dewar, J. A., Homestall Poultry Farm, East Grinstead.
Dickinson, B. O., Pharos, Burnham-on-Sea, Somerset.
Dickson & Robinson (represented by W. P. Robinson), Cathedral Street. Manchester.
Digby, Lord, D.S.O., M.C., Minterne, Dorchester, (L.M.).
Dingle, Miss A. M., Hazelby Dairy, Newbury, Berks.
Dobson, Miss M. G., Studley College, Studley, Warwickshire.
Dobson, P., Manor Farm, Ridgwardine, Market Drayton.
Done, John, Manor House, Malpas, Cheshire.
Downs, J. E., Broad Street, Bilston, Staffs.
Drakeley, Dr. T. J., D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I., 69, Rosebery Road, Muswell Hill, London, N. 10.
Drew, Mrs. J. H., Buff Rock Poultry Farm, Basingstoke, Hants.
Drew, O. W., Romney, Woodley, Reading.
Dronsfield, Capt. W. B., Wilmcote Hill, Stratford-on-Avon.
Dryden, Mrs. S. M., Cooper House Poultry Farm, Kibblesworth, near Gateshead.
Ducie, Earl of, Tortworth Court, Falfield, Glos.
Ducker, N. B., 32, Dover Street, London, W.1.
Dulverton, Lord, Batsford Park, Moreton-in-Marsh, Glos. (L.M.).
Duncan, P. & W., Muncraig, Borgue, Kirkcudbright.
Dunlop, Robert, Chapelhill, Castle Douglas.
Dunlop, Quintin, Greenan, Ayr.
Dunn, Henry, 39, Alverstone Avenue, East Barnet, Herts. (L.M.).
Dutton, B. T., Brindley Hall, Nantwich, (L.M.).
Dutton, S. L., Woodside, Wettenhall, Winsford, Cheshire (L.M.).
Dyer, W. T., Grauntcourts, Rayne, Essex.
Dykes, T., Carlton, Barrhead, Scotland.
Dyson, H. A. Y., Dalton, Bolney, Sussex.

East Kilbride Dairy Farmers', Ltd. (represented by A. Gilmour), 23, Silvergrove Street, Glasgow, S.E.
Easton, Edward G., 43, Gt. Tower Street, London, E.C. 3.
Edge, T. W., Holmeston Hall, Tarporley, Cheshire.
Edney, L. E., National Institute for Research in Dairying, Shinfield, near Reading.
Edwards, A. R., Tynewydd, Castleton, Cardiff (L.M.).
Edwards, Henry, Hofland Road, West Kensington, London, W. 14.
Edwards. J., School of Agriculture, The University, Cambridge.
Edwards, Miss Katie, The Mardy, Pencoed, near Bridgend.
Edwards, Sidney, Tynewydd, Castleton, Cardiff.
Egerton, J. R., Malpas Cottage, Rushmere, Ipswich.

Elce, Mrs. Amy, Barings Field, Newdigate, Surrey.
Ellinger, Prof., Landbohojskole, Copenhagen (H.M.).
Elliot, H. G., Brook House Farm, Ardingly, Sussex.
Ellis, Robert, Standard Works, Annan, Scotland (L.M.).
Elmhirst, L. K., Dartington Hall, Totnes, Devon (L.M.).
Elmhurst Farming and Trading Co., Ltd., (represented by H. St. George Voules), Elmhurst Farm, Slinfold, Sussex (L.M.).
Eltisley, Lord, Croxton Park, Cambridgeshire.
Elwes, Lt.-Col. W., Oakdale, Ockley, Surrey.
Emberlin & Co., Ltd. (represented by J. Wilford), Market Place, Leicester.
Emmet, Hon. Mrs. T. A., Amberley Castle, Amberley, Sussex.
England, W. J., Somerset Farm Institute, Cannington, near Bridgwater.
English Dairies (represented by J. E. Edmonds), Crewkerne, Som.
Enock, Arthur Guy, Dutch House, Raglan Gardens, Wembley Park.
Enock, G., Margaret Street Works, Windus Road, N. 16 (L.M.).
Empson, C. C., Valley Farm, Sproughton, Ipswich.
Errington, Roger, Victoria Mills, Sunderland.
Evans, Miss D. M., County Offices, Dorchester.
Evans, Capt. J. F., Sugley Farm, Nailsworth, Glos.
Evans, E. A., United Dairies, Ltd., 34, Palace Court, W. 2.
Evans, J. M., 2a, Oxford Road, Ealing, W. 5.
Evans, Richard H., Barclays Bank Chambers, Pwllheli, Carnarvonshire.
Evans, Mrs. R. H., 32, Cardiff Road, Pwllheli, Carnarvonshire.
Evans, Miss R. M., Agricultural Offices, Lampeter, Cardiganshire.
Evens, John, J.P., Burton, Lincoln.
Evens, John, junr., Burton, Lincoln (L.M.).
Evens, Thomas, Ramsland, Yealmpton, Devon.
Everard, W. Lindsey, Ratcliffe Hall, Leicestershire (L.M.).
Eves, H. J., Allington, Bridport, Dorset.
Ewing, W., Gate Street Farm, Bramley, Surrey.
Exeter Co-operative & Industrial Society, Ltd. (represented by F. Hannaford), 6 & 7, Eastgate, Exeter.
Express Dairy Company, Limited (represented by R. H. Hewson), Tavistock Place, London, W.C. 1.

Fair, R. B., Homedale, Clarence Road, Wallington, Surrey.
Fairbairn, E. F., Wreay Syke, Wreay, Cumberland.
Fairhead, T. G., Little Chesterford, Saffron Walden, Essex.
Fairweather, E. D., Grange Home Farm, Northington, Alresford, Hants.
Fane, J. Onslow, Steventon Manor, near Basingstoke (L.M.).
Farmer, Mrs. E. J., Devonia, Cippenham, Slough, Bucks.
Farmer, John T. H., Devonia, Cippenham, Slough, Bucks.
Farmers' Clean Milk Dairies, Ltd. (represented by T. W. Steer), 16/18, Greyfriars Road, Reading.
Farrer, Miss B., Pelham House, Bardwell, Bury St. Edmunds.
Fawcett, J., Manor Farm, New Milton, Hants.
Fawkes, F. H., Farnley Hall, Otley, Yorks.
Fazan, Miss F. A., 1, Amherst Road, Bexhill-on-Sea.
Fearis, L. H., Barnwood Lodge, Hucclecote, Gloucester.
Fearnall, P., Calverhall, Whitchurch, Salop (L.M.).
Feilding, Lt.-Col. Viscount, C.M.G., D.S.O., Street Ashton House, Rugby.
Ferguson, W. L., Cairnweil, Sandhead, Stranraer.
Fifield, W. A., Pikes Farm, Bill Hill, Wokingham, Berks.
Fisher, Charles U., Crescent Farm, Sidcup, Kent.
Fisher, Fred T., 110, Fenchurch Street, E.C. 3.
FitzGerald, Lady, Buckland, Faringdon, Berks.
FitzGerald, Sir John, Bart., M.C., Warren House, Stanmore.
Follett, Lt.-Col. H. S., C.B.E., Rockbeare Manor, near Exeter.

Foot, Asher, The Poplars, Rotherwick, Hants.
Foot, A. S., National Institute for Research in Dairying, Shinfield, Reading.
Foot, Mrs. R. M., White Hill, Berkhamsted (L.M.).
Forshaw, James & Sons, Stud Farm, Carlton-on-Trent, Newark.
Fortescue, Earl, Castle Hill, South Molton, North Devon (L.M.).
Fortescue, George G., Boconnoc, Lostwithiel, Cornwall.
Forteviot, Lady, Galloway House, Garliestown, Wigtownshire.
Four Oaks Spraying Machine Co. (represented by W. C. G. Ludford), Four Oaks, Sutton Coldfield, Birmingham, Warwickshire.
Fowler, A. B., Kirkhill Farm, Ayr.
Fowler, W. Herbert, J.P. (L.M.).
Foxton, J., Benningholme Hall, Skirlaugh, near Hull.
Fox-Brockbank, A. H., The Croft, Kirksanton, Millom, Cumberland.
Francis, E. J., Manor Farm, Stour Provost, Gillingham, Dorset.
Francis, F. S., Wilkin Throop Farm, Templecombe, Somerset.
Franklin, A., Chartridge Lodge, Chesham, Bucks.
Franklin, H., Coltsfoot Farm, Datchworth, Herts.
Freeland, R. A., Beacon House, Yew Tree Road, Southborough, Tunbridge Wells.
Freemantle, C. R., 9-10, Bond Court, Walbrook, London, E.C. 4.
Freeth, H. C., 93, Redland Road, Bristol.
Freshney, S. D., Bonby, Brigg, Lincs.
Fricker, P., Blackness Farm, Crowborough, Sussex.
Frieland, H. N., 67, Scrutton Street, London, E.C. 2.
Fuller, Major Robert F., J.P., Great Chalfield, Melksham, Wilts. (L.M.).
Fullwood & Bland (represented by C. Bland), 31, Bevenden Street, Hoxton, N. 1.
Furze, J. R., Stanford Rivers, Ongar, Essex.

GABRIEL, WADE & ENGLISH, LTD. (represented by G. H. B. English), Wisbech.
Galbraith, D., 37, Pennine Drive, Cricklewood, London, N.W. 2.
Gamble, A. J., 14, East Bridge Street, Belfast.
Garner, Frank H., University Farm, Huntington Road, Cambridge.
Garnett, G., The Park, Eccleshall, Bradford.
Garrad, G. H., Springfield, Maidstone,
Garrard, F. R., The Hall, Framlingham, Suffolk (L.M.).
Gartons, Ltd (represented by Thomas E. Miln), Warrington.
Gascoignes (Reading) Ltd. (represented by G. H. Gascoigne), Gascoigne House, Gt. Knollys Street, Reading.
Gear, A. F., The Creamery Package Manufacturing Co., Avery House, Clerkenwell Green, London, E.C. 1.
Gee, George, Ely Grange, Frant, Sussex.
Gerrard, Miss A., Huddington, Droitwich.
Gerrard, Miss N., " Sulby," Knowsley Road, Rainhill, Lancs.
Gibson, Mrs. M., Knapp Farm, Whitestaunton, near Chard, Som.
Gilbert, F. W., The Manor, Chellaston, Derby.
Gilbert, F. W. H., junr., The Manor, Chellaston, Derby.
Gilbert, W. H. R., The Cottage, Aston Flamville, Hinckley.
Gillard, R. H., South Cadleigh, Ivybridge, Devon.
Gillate, E. Uwins, Shawlands, Lingfield, Surrey.
Gilmour, A., West Crosshill, East Kilbride, Lanarkshire.
Gisborne, Col. L., C.M.G., Lingen Hall, Brampton Bryan, Herefordshire (L.M.).
Gittins, William H., The Hall Farm, Ruyton Eleven Towns, Shropshire.
Glazebrook, R., The Lydiate, Willaston, Cheshire.
Glazebrook, W. R., Manley Hall, Overton Bridge, Wrexham.
Glentanar, Lord, Estate Office, Glen Tanar, Aboyne, Scotland (L.M.).
Glossop, C. W. H., The Lund Dairies, Bramwith, near Doncaster.
Gloucester Incubators, Ltd. (represented by G. W. Wrentmore), Woodchester Works, Stroud, Glos.

Glover, Wilfred, The Retreat, Willoughby, Waterleys, near Leicester.
Godfrey, Mrs. L., Manor House, Woodchester, Glos.
Godfrey, John, & Co., Ltd. (represented by C. B. Carter), Railway Gates, Stamford.
Godwin, J. F., Manor Farm, North Aston, Oxford.
Golding, Capt. John, D.S.O., Lyndhurst Grange, Shinfield, near Reading.
Golding, W. J., Bowens, Penshurst, Kent.
Goldsmith & Silversmiths Co., Ltd. (represented by J. W. Rice), 112, Regent Street, London, W. 1.
Goode, C. N., The Croft, Bedford Road, Rushden, Northants.
Goodwin, J. D., Ash House, Brindley, Nantwich.
Goodwin, P., Bubney, Whitchurch, Salop.
Goodwin, Thomas C., Leighton Grange, Crewe.
Goodwin-Courtman, E. G., Universal Farm Requisite Stores, Newnham, Glos.
Gordon, A. W., Letton Hall Home Farm, Shipdham, Norfolk.
Goschen, Sir Harry, Bart., Durrington House, Harlow, Essex.
Gosney, G. F., Room 234, Shell Mex House, Victoria Embankment, W.C. 2.
Gould, R. P., Beech Croft, Costessey, Norwich.
Grabham, A., 139, Englefield Road, Essex Road, London, N. 1.
Grace, E. G., 6, Bridge Street, Bristol.
Graham, J. C., Marielyn, Little Crosby Road, Gt. Crosby, near Liverpool.
Graham, Lord Alastair M., Chantry Farm, Campsea Ashe, Woodbridge, Suffolk.
Graham Bros., Whytings Farm, Horsham, Sussex.
Grant, A. P. F., M.B.E., Kirby Hall, Horton Kirby, Kent.
Grant, Mrs. M. A., Kirby Hall, Horton Kirby, Kent.
Grant, Mrs. M. F. C., Ham Lodge, Wickham Road, Croydon.
Grant, S. M., General Poultry Industries, Ltd., 21, Hyde Street, Winchester.
Gray, J. G., Coombe Abbey, Coventry.
Gray, Mrs., Dibden, Purley, Southampton.
Green, A. W., Stoke Abbey Farm, Stoke Bishop, Bristol.
Green, Edward, Ina Works, Ingatestone, Essex.
Green, H., Dudwell Farm, Chewton Mendip, Bath.
Green, J. J., County Offices, Preston, Lancs.
Green, W. S., The Firs, Hedge End, Southampton.
Greenhow & Hartley, Galaberry Poultry Farm, Annan, Dumfriesshire.
Greenway, Lord, Stangrove Park, Edenbridge, Kent.
Greenwood, Lt.-Col. Charles S., M.B.E., J.P., Swarcliffe, Birstwith, Harrogate.
Gregory, W., & Co., Ltd. (represented by W. Gregory), Wellington, Somerset.
Griffin, E., 84, High Street, Slough.
Griffith, M., B.Sc., Pwllpeiran, Devil's Bridge, S.O., Cardiganshire.
Griffith, Mrs. M. L., Little Hallingbury Park, Essex.
Griffiths, Miss M. F., Blacklands Hall, Cavendish, Suffolk.
Grimsby Fish Meal Co., Ltd. (represented by The Secretary), Pyewipe, Grimsby.
Grosvenor, Mrs. C., 2, Upper Grosvenor Street, London W.
Groves, Miss M., 55, Victory Road, Little Lever, Bolton, Lancs.
Guilford, Earl of, Estate Office, Waldershare Park, Dover.
Guinness, Hon. G. E., Holmbury House, Holmbury St. Mary, Dorking.
Gulliver, J. E., Westbury Farm, Purley, near Reading.
Gunn, H., Enville, Pirton Lane, Churchdown, Glos.

HACKING, Thomas, M.Sc., 6a. St. Martins, Leicester.
Hall, Edmond, Torrisholme Hall, Morecambe (L.M.).
Hall, E. B., Hales Hall, Market Drayton, Salop.
Hall, Miss E. M. G., Chestnut Tree House, Willersey, near Broadway, Worcs.
Hall, H. Whitworth, J.P., Bennington Park, Stevenage, Herts.
Hall, W. E., Model Dairy, Lynchford Road, Farnborough, Hants.
Hallett, C. M., Walronds Park, Ile Brewers, Taunton.

Hambleden, Viscount, Greenlands, Henley-on-Thames. (Agent, C. W. Brighten, Lloyds Bank Chambers, Maidenhead.
Hambling, Sir Guy, Bart., Rookery Park, Yoxford, Suffolk.
Hambro, Lt.-Col. H. E., C.B.E., Coldham Hall, Bury St. Edmunds.
Hambro, N., Coldham Hall, Bury St. Edmunds (L.M.).
Hambro, R. O., Kidbrooke Park, Forest Row, Sussex.
Hamilton, H. P., B.V.Sc., The Laboratory, Goring, Reading.
Hamilton and Brandon, The Duchess of, Ferne, Donhead, Shaftesbury.
Hammond, John, School of Agriculture, Cambridge.
Hamnett, W., Myrtle Poultry Farm, Poulton-le-Fylde, Lancs.
Hankey, Colonel Walter A. (L.M.).
Hankinson, Mrs. E. M., Field Bank, Seale-Hayne, Newton Abbot.
Hannon, Lady, The Mount Farm, Farnham Royal, Bucks.
Hansen's Laboratory, Ltd. (represented by J. C. Moller), Astor House, Aldwych, London, W.C. 2.
Hardcastle, Major H. M., Bradshaw Hall, Bolton-le-Moors, Lancs.
Hardie, G. M., 50, St. Leonard's Road, Bexhill-on-Sea.
Harding, G. P., Kimpton Holt, Hitchin, Herts.
Hardman, N., The Elms, Barton, Preston, Lancs.
Hare, E. F., Market Place, Market Deeping, Lincs. (L.M.).
Hare, G. F., Trafford Road, Wisbech, Cambs.
Harford, M. W., Horton Hall, Horton, near Bristol.
Hargreaves, R., Abbeydene Poultry Farm, Whalley, Lancs.
Harlech, Lord, Brogyntyn, Oswestry.
Harries, T. Ll., Pilrhoth, Llangain, Carmarthen.
Harris, C. and T. (Calne), Ltd., (represented by R. P. Redman), Calne, Wilts.
Harris, N., Darley Dale, Libertus Road, Arle, Cheltenham, Glos.
Harris, Stanley, Aspley Guise, S. O., Bedford (L.M.).
Harrison, E. W., Top House, Kenwick Park, Ellesmere, Salop.
Harrison, W., Dutton Manor Home Farm, Longridge, nr. Preston.
Harrison & Sons (represented by J. Harrison), St. James Street, Leicester.
Harrison, McGregor & Co., Ltd., Albion Iron Works, Leigh, Lancs.
Harrop, I., 15, Woodville Grove, South Reddish, Stockport.
Hassonna, M. M., The University, Reading.
Hastings, Matthew, North Boig, New Cumnock, Scotland.
Hastings, Lord, Melton Constable Park, Norfolk.
Hatchwell, Miss H. M., 38, Abbotsbury Road, Newton Abbot.
Havinden, G., 9, Queen Victoria Street, E.C. 4.
Hawes, F., Little Compton, Moreton-in-Marsh, Glos.
Hawkins, Mrs. D. K., Everdon Hall, Daventry, Northants.
Haworth, Alfred, B.A., J.P., Ravelstone, Manley, Warrington.
Hay, A., East Anglian Institute of Agriculture, Chelmsford.
Hay, Percy T., 3, Brookfield Park, Highgate Road, London, N.W. 5.
Hay, W. D., B.Sc., Somerset Farm Institute, Bridgwater, Somerset.
Haydon, D., 63, Honor Oak Road, S.E. 23 (H.M.).
Hayes, G. Constable, The Greenway, Shurdington, Cheltenham.
Haylett, R. W., Railway Road, Downham, King's Lynn.
Hayward, Colonel J. F. Curtis, Quedgeley, Gloucester (L.M.).
Headly, L. C., Abbey Gate, Leicester.
Heap, Miss I., Lilies, Aylesbury.
Hearnshaw, Mrs. R. Fletcher, Foxhill, Burton Joyce, Nottingham (L.M.).
Heaver, Exors. of the late John W. T., Ratham House, Chichester, Sussex.
Hebditch, Harry, Poultry Farmer and Appliance Maker, Martock, Som.
Hedley, J. R. P., Southcote Grange Farm, Reading.
Heilgers, Capt. F. F. A., Wyken Hall, Bardwell, Bury St. Edmunds.
Heller, S., 35, Lealand Road, London, N. 15.
Heller & Sons (represented by M. Heller), 35, Lealand Road, N. 15.
Hemsley, G., Boat House Farm, Isfield, Sussex.

Henderson, Hon. A. P., Windlesham Park, Windlesham, Surrey (L.M.).
Henderson, Hon. E. B. B., Winwick Manor, Rugby.
Henderson, Hon. P., Gerston, Storrington, Sussex.
Henderson, Miss Marjorie, The Riding, Hexham, Northumberland.
Hennerty, Miss M., Department of Agriculture, Government Buildings, Dublin.
Henshaw, H., Quintanes, Steventon, Basingstoke.
Herbert, C. A., Heydown Farm, Heathfield, Sussex.
Herbert, F. F., The Graig, Penallt, Mon.
Heritage, J. A., Coolinge Farm, Folkestone.
Herts. and Beds. Bacon Factory (represented by J. B. Busby), Hitchin.
Heseltine, Lieut.-Col. John E. N., Hawking Down, Hindon, Wilts.
Hesford, C. M., & Co., Ltd., Agricultural Engineers, Ormskirk.
Hewthorn & Co., Ltd. (represented by H. Kent), Cook's Road, E. 15.
Heywood, N. A., J.P., Glevering Park, Wickham Market, Woodbridge (L.M.).
Heyworth-Savage, Lt.-Col. C. F., O.B.E., Bradwell Grove, Burford, Oxford.
Hicking, Sir William N., Bart., Brackenhurst Hall, Southwell, Notts.
Hickman, J. O., Micklefield Green, Rickmansworth.
Higgins, W., Kilburn Lane Farm, Kensal Green, London, N.W.
Hignett, L., Hook End Farm, Checkendon, Oxon.
Higgs, W. J. C., Pattullo, Higgs & Co., Ltd., Orpington, Kent.
Hill, A. F., Townsend Farm, Waterperry, near Oxford.
Hill, J., Elswick Grange, Elswick, near Kirkham, Lancs.
Hill, Sir James, Bart., Hexton Manor, Hitchin.
Hill, G., & Sons (represented by E. F. Hill), Evercreech, Somerset.
Hills, A. L. F., Redleaf Estate Office, Penshurst Station, Kent.
Hilton, Miss K.,Hill Head, Hopwood, Heywood, Lancs.
Hindlip, Agatha Lady, Hindlip Hall, Worcester.
Hingston, Capt. A. T., Dunsford, near Exeter.
Hipkins, W., 16, Bryn Drive, South Reddish, Stockport.
Hiron, H. W. M., Alka Works, Minerva Road, N.W. 10.
Hirst, R., The Royds, Cleckheaton, Yorks.
Hirst, R. S., Swincliffe House, Gomersal, near Leeds.
Hoare, G. de M. G., Tilburstow Hill Farm, South Godstone, Surrey.
Hoare, Sir H. H. A., Bart., Stourhead, Zeals, Wilts.
Hobbs, Robert, Kelmscott, Lechlade, Glos.
Hobson, C. W., Woodhey Hall, Nantwich.
Hobson, H. S., Brockton Hall, Eccleshall, Staffs.
Hobson, W. H., Noyna Mede, Nantwich.
Hobson, J. T., & Co. (represented by G. N. Martin), New Wharf, St. Mary's, Bedford.
Hodge, Mrs. Arthur B., The Redings, Totteridge, London, N. 21.
Hodge Bros., Wyddial Bury, Buntingford, Herts.
Hogg, W. H., Seale-Hayne Agricultural College, Newton Abbot.
Holborrow, J. P., Northfield Farm, Charlton Kings, Glos.
Hole, Sidney, Yew Tree House, Albourne, Hassocks, Sussex.
Holland, J. C., Holywell Row, near Mildenhall, Suffolk.
Hollas, Mrs. K., Parsonage Farm, Highworth, Wilts.
Hollebone, E. C., 31, Keswick Road, Putney, S.W.
Hollingsworth, T., Union Street, Wednesbury, Staffs.
Holm, H. C., The Grange, Carlton Curlieu, Leicester.
Holmes, Carl, Clover Top Farm, Welwyn, Herts.
Holmes, John, Room 5, 47, Park Square, Leeds.
Holmes, W. F., The Thatched House, Hampton Wick, Middlesex.
Holmes-Hunt, W., Crawley Down, Sussex.
Holt, Edmund, The Limes, Tulford, Wrexham.
Holt, Capt. H. P., Lackham House, Lacock, Wilts.
Hoole, Mrs. G., 107, Ivy Mount, Bolton Road, Chorley, Lancs.
Hope, H. E., Hope's Wharf, Hammersmith, London, W. 6.

Hopkins, G., & Sons (Clerkenwell), Ltd. (represented by A. D. Hopkins), 40-52, Holloway Road, N. 7.
Hopley, E., Knights Grange, Winsford, Cheshire.
Hopwood, A. A., Mouldsworth Hall, Chester.
Hopwood, A. G., Oscroft Hall, Tarvin, Cheshire.
Hornby, W. E., Keynsham Manor, Saltford, Som.
Hornby & Clarke (represented by H. E. Hornby), 12, The Quadrant, Richmond, Surrey.
Horne, Sir W. Edgar, Hall Place, Shackleford, Godalming, Surrey.
Horticultural College (represented by Miss K. Barratt) Swanley, Kent.
Hosier, A. J., Wexcombe House, Marlborough, Wilts.
Hoskins, S., Ashley Manor, Tetbury, Glos.
Hoskyns, H. W. W., North Perrott Manor, Crewkerne, Som.
Hough, C. W., Springhouse Farms, Theydon Bois, Essex.
Hough, Tom G., Elmfield, Bilton Road, Rugby.
Houldsworth, Col. W. T. R., Kirkbride, Maybole, Ayrshire.
Howard, H. G., 23, Ditton Court Road, Westcliff-on-Sea.
Howie, James, Hillhouse, Kilmarnock.
Howson, Capt. T. A., Royal Welsh Agricultural Society, Queen Buildings, Queen Street, Wrexham.
Hoyle, J. J., Chase Cottage Farm, Potters Bar, Middlesex.
Hughes, A. O., Lindow, Rhosneigr, Anglesey.
Hughes, J. T., Lindow, Rhosneigr, Anglesey.
Hulme, E. H., Priory Farm, Tarbock, near Liverpool.
Hunt, A. H., Dropping Lane Farm, Bruton, Som.
Hunt, James, Ltd. (represented by E. A. Hunt), Atalanta Street, S.W. 6.
Hunt, Miss M. A., 184, Kensington Road, Reading.
Hunt, W., Diptford Downs, Diptford, S. Brent, S. Devon.
Hunter, J. A. & Co., Ltd. (represented by H. M. Blackburn), Broadgreen, Liverpool, 14.
Hunter, James P., Whiteleys Farm, Stranraer.
Hunter, John P., Garthland Mains, Stranraer.
Huxley, Dr. H., Wootton Close, Boars Hill, near Oxford.
Hyland, A. E., Room 400, Australia House, Strand, W.C. 2.

IBBOTSON, H. L., College Road, Perry Common, Birmingham.
Iceton, J., Langdon Beck Hotel, Forest, Middleton in Teesdale.
Iliffe, Joseph, Port House, Coventry Road, Hinckley.
Innes, Col. J. A., D.S.O., Horringer Manor, Bury St. Edmunds.
International Harvester Company of Great Britain, Ltd. (represented by Arthur Neale) 259, City Road, London, E. C. 1.
Ireland, Miss Ellen L., East Balmirmer, Arbroath, Scotland.
Iveagh, Earl of, C.B., C.M.G., 11, St. James's Square, S.W. 1.

JACK, A., Manor Farm, Singleton, Chichester.
Jackson, Dr. E. S., Carnforth.
Jackson, J. & H. (represented by H. Jackson), Eden Bank, Culgraith, Penrith.
James, Miss E. E., Copt Heath Farm, Solihull, Warwickshire.
James, Miss Rachel, Llancayo, near Usk, Mon.
Jamieson, J., Round Bush, Annan, Dumfriesshire.
Jeffrey, A., Elmsley Works, Edinburgh Road, Walthamstow, E. 17.
Jenkins, Miss O., Shire Hall, Hereford.
Jenkinson, F. H., 14, Church Lane, Handsworth, Birmingham.
Jenkinson, Hon. Mrs. R., Knap Hill Manor, Horsell, Surrey.
Jenkinson, W. D., 14, Church Lane, Handsworth, Birmingham.
Jennings, John E., Restormel, Lostwithiel, Cornwall.
Jersey Agricultural Products, Ltd., 74, Halkett Place, St. Helier, Jersey, C.I.

Jervoise, A. T. E., White Lodge, Speen, Newbury (L.M.).
Jervoise, Major F. H. T., Herriard Park, Basingstoke.
Jervoise, Miss F. H., Fargett's Farm, Arborfield, Berks.
Jervoise, Mrs. B., Herriard Park, Basingstoke, Hants. (L.M.).
Jessop, W. Frank, Thomley Hall, Aylesbury, Bucks.
Jobey, Richard F., 2, Hesketh Crescent, Torquay.
Johnson, Mrs. E., Ashton Hayes, Chester.
Johnson, J. W., 19, Westgate, Peterborough.
Johnson, Miss M., Meadow End Poultry Farm, Cradley, Malvern, Worcs. (L.M.).
Johnston, William Hunter, 17, Cumberland Park, Acton, W. 3.
Jones, D., Merwsrydd, Aberayron, Cardiganshire.
Jones, D. E., 23, Bury Street, London, W.C. 1.
Jones, Griffith, Shire Hall, Llangefni, Anglesey.
Jones, G. Cecil, 43, Great Tower Street, London, E.C. 3.
Jones, Major Harry, The Elms, Brandon, Suffolk.
Jones, Isaac, Llysfasi Farm Institute, Ruthin.
Jones, Miss Elsie, Agricultural Office, Builth Wells, Breconshire.
Jones, Miss J., Shire Hall, Langefni, Anglesey.
Jones, Miss M., The County Dairy, Houghall, Durham.
Jones, William C., Hatherton Lodge, near Nantwich.
Jopson, D., Ormathwaite Hall, Keswick, Cumberland.
Joyce, John, Milverton, Somerset.
Jury, Sir William, Sherwood House, Bath Road, Reading.

Kay, Dr. H. D., National Institute for Research in Dairying, Shinfield, near Reading.
Keeble, J. R., Brantham Hall, Manningtree.
Keeling, P. G., 189, Finney Lane, Herald Green, Cheshire (L.M.).
Keevil, C. P., 228, Central Market, Smithfield, E.C. 1.
Kelly, J. M., North Wycke, Southminster, Essex.
Kemsley, Lord, Farnham Chase, Farnham Royal, Bucks.
Kendall, J. N., Brimpsfield Park, Gloucester.
Kennedy, Mrs. Watson, Wiverton Hall, Cley, Norfolk.
Kent, T., Overton Farm, Tean, Stoke-on-Trent.
Kenworthy, J., Hurst Hall, Ashton-under-Lyne.
Kidd, R., Kayi Lami, Burton Joyce, Nottingham (L.M.).
Kidner Bros., Stoke Holy Cross, Norwich.
King, Alfred C., Braishfield Manor, Romsey, Hants.
King, E. A., Val Shema, Cheltenham Road, Gloucester.
King, E. F., Springfield Farm, Nakurn, Kenya, British East Africa.
King, Dame E. Locke, Brooklands, Weybridge, Surrey.
King, G. E., 23, North Cross Road, East Dulwich, London, S.E. 22.
King, J. D., Broom Farm House, Biggleswade.
King, G. W., Ltd. (represented by L. T. Tubbs), Hartford Works, Hitchin.
Kingscote, Geo. S., Gloucester Dairy Supply, Ltd., Gloucester.
Kirby, Arthur T., Nuneham Courtenay, Oxford.
Kirkpatrick, A. & A., Barr, Sanquhar, Scotland.
Kistler, G. H., Hotel Chy-An, Albany, St. Ives, Cornwall.
Knight, John.
Knight, J. R., 4, Church Street, Lower Edmonton, N. 9.
Knowles, Miss Margaret, Chipping Dairy, Longridge, Preston.
Knox, Major-Gen. Sir Alfred, K.C.B., C.M.G., 13, South Street, W. 1.

Laidlaw, D. G., Diswellstown, Castleknock, Co. Dublin.
Lamb, Sir Joseph Q., J.P., M.P., Oaklands, Eccleshall, Staffs.
Lambe, Air Vice Marshal Sir Charles, Grove House, Semley, Shaftesbury.
Lambton, General The Hon. Charles, D.S.O., Naval and Military Club, 94, Piccadilly, London, W. 1.

Lamington, Lord, G.C.M.G., Lamington House, Lamington, Lanarkshire.
Lancaster, H., The Creamery, Saighton, near Chester.
Lands End Co-operative Dairy Co., Ltd. (represented by C. W. Augove), St. Buryan, Cornwall.
Lane, E. H., Hill House, Crowhurst, near Battle, Sussex.
Lane, Capt. R. W., Debden Mount, Loughton, Essex.
Lane & Williams, Fewhurst, Billingshurst, Sussex.
Lang, J. & D. (represented by J. Lang), Manor Farm, Claygate, Surrey.
Langman, Sir A. L., C.M.G., J.P., North Cadbury, Somerset.
Larkworthy, Miss M. V., Cooper's Bridge, Bramshott, Hants.
Latter, K. A., Weald Place, Sevenoaks, Kent.
Lawrence, Col. The Hon. Sir G., K.C., D.S.O., Hill Farm, Oaksey, Wilts.
Lawrence, Miss M. P., Thorpes Farm, Hawkhurst, Kent.
Lawrence & Co., Ltd. (represented by F. W. Cave), 132, Latimer Road, W. 10.
Lea, William L., Bryn Euryn, Colwyn Bay.
Lear, H. Howard, Dornford House, Gloucester.
Leech, George H., The Greaves, Rochdale, Lancs.
Legge, Lady Joan, Three Hammers, Coven Heath, Wolverhampton.
Leighton, H. N., 42, Bramley Avenue, Coulsdon, Surrey.
Leitch, Prof. Renwick H., M.A., D.Sc., Dairy Research Laboratory, Auchincruive, Ayr, Scotland.
Leitrim, Earl of, Mulroy, Co. Donegal (L.M.).
Lewis, Mrs. H. D., Combwell Priory, Flimwell, Kent.
Lewis, T. H., Ltd. (represented by W. W. Travis), 122, Gloucester Road, Chalk Farm, London, N.W. 1.
Ley, Sir Gordon, Bart., Furze Down, King's Somborne, Hants.
Lidstone, W. J. G., 150, High Street, Slough, Bucks.
Lilburn, J., Craigforth, Elie, Fife.
Liles, C., & Son (represented by James L. Adamson), 26, Floral Street, W.C. 2.
Lilford, Lord, Lilford Hall, Oundle, Northants.
Lind, James, Woodredon Farm, Waltham Abbey, Essex.
Ling, A. W., M.Sc., University of Bristol, 22, Berkeley Square, Bristol 8.
Lingard, Capt. D., 47, Cannon Street, Manchester.
Lipscombe, A., Mount Dairy Farm, Denham, Bucks.
Lister, R. A., & Co., Ltd., Dursley, Gloucestershire.
Little, George, 1, Brook Street, Huddersfield.
Little, Miss Emily K., Ivydene, Charlton Road, Wantage, Berks.
Little, Miss J. K. B., Armsworth Hill, Alresford, Hants.
Liverine, Ltd. (represented by Hendric King), Grimsby, Lincs.
Livingstone-Learmonth, Capt. N., J.P., Fifehead Magdalen, Gillingham, Dorset.
Llewellin, G. Herbert (representing G. Llewellin & Son), Haverfordwest.
Lloyd, Brig.-Gen. A. H. O., J.P., D.L., Leaton Knolls, Salop.
Lloyd, Sir John B., Foxbury, Stone Street, near Sevenoaks.
Lloyd, J. L., Piburlwyd Farm Institute, Carmarthen.
Loch, Major-Gen. Lord, Stoke College, Stoke-by-Clare, Suffolk.
Locke, R. C., M.R.C.V.S., 38 and 40, Lloyd Street, Manchester.
Lockett, K., & Son, Hill Farm, Moreton Wood, Whitchurch, Salop.
Lockwood, S. S., Normanby Hill, Sinnington, York.
Loder, E. J., Ryall's Farm, Folke, Sherborne, Dorset.
Loder, Lady, Leonardslee, Horsham, Sussex.
Loftus, F., Preese Hall, Weeton, Kirkham, Lancs.
Logan, James, Powis Mains, Stirling.
Logan, John, Beauchamps Farm, Buntingford, Hertfordshire.
Logan, Thomas, Low Milton, Maybole, Ayrshire.
Logan, W. & J. (represented by W. Logan), Burton Farm, Ayr.
Lohoar, R., Greenlees, Cambuslang, Glasgow.
Long, F., Humberstone Dairy Farm, Great Yarmouth.

Longden, G. A., Draycott Lodge, near Derby (L.M.).
Longe, H. D., J.P., Abbot's Hall, Stowmarket.
Longhurst, Mrs. M. D., 41, Sedlescombe Road South, St. Leonards-on-Sea.
Lonsdale, Earl of, K.G., G.C.V.O., Lowther, Penrith, Cumberland.
Loveless, A. W. H., Priors, Keston, Kent.
Lovell, Ernest J., The Orchard, Newdigate, Surrey.
Lovell, W. G., 12, West Smithfield, London, E.C. 1.
Lowndes, William, The Bury, Chesham, Bucks. (L.M.).
Loyd, A. Thomas, Lockinge House, Wantage, Berks. (L.M.).
Lucas, Albert E., The Manor House, Stowe Nine Churches, Weedon, Northants.
Luckin, A., Orfold, Wisborough Green, Billingshurst.
Lumley, Miss M., Manor House, East Heslerton, Malton, Yorks.
Lund, T., Willow Farm, Catforth, Lancs.
Lupton, N. D., Chalmington, Dorchester, Dorset (L.M.).
Lymington, Viscount (all communications to F. J. Hunt, Estate Office, Farleigh Wallop, Basingstoke).
Lymposs, C., Piccards Farm, Guildford.
Lymposs, Fred. W., Tilehouse Farm, Guildford.
Lyon, James, Orange Court Farm, Guildford.
Lyon, Lt.-Col. Charles, Appleton Hall, Warrington, Cheshire (L.M.).

MacAndrew, E. G., Pallinghurst, Baynards, Horsham (L.M.).
Macdougall, Major Ian, O.B.E., 4, Vernon Place, London, W.C.1.
Macintosh, E., Boxhill Farm, Dorking, Surrey.
Mackay, D., Symonds Hyde, Hatfield, Herts.
Mackay, W., Suttons Farm, St. Albans.
MacKenzie J., 50, Hamilton Place, Edinburgh.
Mackereth, Mrs. S., Tongues Farm, Preesall, Fleetwood, Lancs.
Mackie, James, Relief, Ecclefechan, Dumfriesshire.
Mackie, J. Hugh, Park Cottage, Castle Cary, Somerset.
Mackie, Robert W., Park Cottage, Castle Cary, Somerset.
Mackintosh, James, National Institute for Research in Dairying, Shinfield, near Reading.
Mackintosh, Sir Harold, Bart., Conyngham Hall, Knaresborough.
MacLean, D. C., National Institute for Research in Dairying, Shinfield, nr. Reading.
Macqueen, Miss M. M., c/o Barclays Bank, Melbury Court, Kensington High Street, W.8.
MacRobert, Sir Alasdair W., Bart., Trustees of, Douneside Home Farm, Tarland, Aberdeenshire.
McCall, Robert, Munster Institute, Cork.
McCallum, J. W., Grange Farm, Chartridge, Chesham, Bucks.
McClemont, J., National Institute for Research in Dairying, Shinfield, near Reading.
McCombe, W. B., Westcroft, Luttrell Avenue, Putney, S.W. 15.
McGregor, J., Department of Agriculture, The University, Leeds.
McIntyre, J., junr., Logan Mains, Port Logan, Stranraer.
McLaren, Miss H. C., The Drove Way, Buxted, Sussex.
McNair, W., Long Clawson Dairy, Ltd., Long Clawson, Melton Mowbray.
McVicar, A., 22, Hamilton Road, Lincoln.
McWilliam, Mrs. A. S., M.B.E., The Orchard, Bakewell, Derbyshire.
McWilliam, G., Dunwood Manor Farm, Romsey, Hants.
Madsen-Mygdal, T., Edelgave, Maalov, Denmark (H.M.).
Magee, T., Salwick Hall, Salwick, near Preston.
Main, Alex., M.A., B.Sc., N.D.A., Board of Agriculture for Scotland, York Buildings, Queen Street, Edinburgh.
Major, A. J., Ditton, Slough, Bucks.
Malmesbury & Parsons' Dairies, Ltd., 103, Christchurch Road, Boscombe.

Mamhead, Lord, Mamhead Park, Exeter.
Manchester, W. E., J.P., 8, Tavistock Place, London, W.C. 1.
Manger, Herbert A., 57, High Street, Kingsland, London, E. 8 (L.M.).
Mann, Sir Edward, Bart., Thelveton Hall, Diss, Norfolk.
Mansfield, W. S., Cambridge University Farm, Cambridge.
Mappin & Webb, Ltd., 158-162, Oxford Street, London, W. 1.
Margarson, T. J., M.R.C.V.S., Camden House, Linden Road, Stroud, Glos.
Marlborough, Duke of, Blenheim Palace, Oxfordshire (L.M.). (All communications to the Secretary, Farms Office, Blenheim Park, Woodstock).
Marriott, R., Farm House, Rushden, Northants.
Marsh, A. E. (representing Marsh & Baxter, Ltd.), Brierley Hill, Birmingham.
Marshall, E., 7, Gregory Street, Lenton, Nottingham.
Marsland, Miss N.
Mart, Miss S., Orchards, Wire Mill, Lingfield, Surrey.
Martin, F., Ryne Hill, Kingham, Oxford.
Martin, John, Nether Hall, Fletching, Sussex.
Martindale, J. D., Avenham Hall Farm, Singleton, near Blackpool.
Martlew, T., Fairway, The Close, Harpenden, Herts.
Masham Farmers' Dairy Co-operative Society, Ltd. (represented by R. E. Peacock), Wellgarth Dairy, Masham, Yorks.
Mason, Miss Jean, The Elizabethan Cottage, Barming, Kent.
Massey, Miss M., Lancs. C. C. Farm, Hutton, near Preston.
Mather, H., Sidegarth, Staveley, Westmorland.
Mathers, J., The Poplars, Lowdham, Notts. (L.M.).
Mathews & Skailes, Ltd., 30, Denman Street, London, S.E. 1.
Mathie, W., Myremill, Maybole, Ayrshire.
Matthews, H., Down Farm, Winterbourne, Bristol.
Matthews, Miss Annie, Avonwen, Heenan Road, Old Colwyn, N. Wales.
Matthews, Miss Jessie, The University, Reading.
Mattick, A. T. R., National Institute for Research in Dairying, Shinfield, near Reading.
Maundrell, S. W., Lushill Farm, Highworth, Wilts.
Maxted, O. D., Upper Gorrington, Littlebourne, Canterbury.
Maxwell, Hon. Stella F., Hill Farm, Layer-de-la-Haye, Colchester.
Maxwell, Hon. Zoe E., Hill Farm, Layer-de-la-Haye, Colchester.
Maxwell-Jackson, Miss M., Percy House, Scotton, nr. Knaresborough.
May, F. S., Polebrook, Hever, Kent.
May, Mrs. H. P., The Priory, Tiptree, Essex.
May, W. C., Australian Dairy Produce Board, Adelaide House, London Bridge, E.C. 4.
Maycock, B. K., The Tudor Press, Ltd., 75, Carter Lane, London, E.C. 4.
Mayhew, Lt.-Col. John.
Mayo, H. G., Carton, Upway, Weymouth.
Mead, V. V., Garston Farm, East Meon, Petersfield.
Mee, F. S., Shepshed, Leicestershire.
Meikle, J., Camregan, Girvan, Ayrshire.
Meinertzhagen, Mrs. G., Theberton House, Theberton, Leiston, Suffolk.
Melvin, Sir Martin J., Bart., J.P., Billesley Manor, Alcester.
Merrall, E., 15, Sunny Mount, Keighley, Yorks.
Merrick, T. H., Hurdlesgrove, Whitchurch, Aylesbury.
Merriman, H. P., Codmore Farm House, Chesham.
Michaud, G., Union Centrale des Producteurs Suisses de Lait, Laupenstrasse 7, Bern, Switzerland (H.L.M.).
Mildmay of Flete, Lord, Ivybridge, South Devon.
Miles, C. S., 13, Harborough Road, Streatham, London, S.W. 16.
Miles, F. A., Bladen Dairies, Ltd., Milborne St. Andrews, Blandford, Dorset.
Miles, Lt.-Col. Sir Charles W., Bart., Walton-in-Gordano, Clevedon, Som.
Miller, John R., Midkelton, Castle Douglas.

Miller, R. Scott, Pittachar, Crieff, Perthshire.
Miller, Ball & Toulmin, Ltd. (represented by S. Kirkham), 81, Fishergate, Preston.
Miller-Hallett, Alexander, 202, Rotherhithe Street, London, S.E. 16.
Milne-Harrop, Capt. N., Garthgynan, Ruthin, N. Wales.
Minett, Dr. F. C., Royal Veterinary College, Camden Town, N.W. 1.
Mitchell, H. E., Great Pellingbridge Farm, Scaynes Hill, Sussex.
Mitchell, Miss M., Grayrigg, Old Colwyn, North Wales.
Mitchell, P. Thomas, Banks Farm, Moreton-in-Marsh.
Mitchell, Walter, & Sons (represented by A. Mitchell), Ayr.
Mitford, Capt. The Hon. B., D.S.O., R.N., Swinbrook, Burford, Oxfordshire.
Molassine Co., Ltd. (represented by S. W. Goodman), Greenwich, S.E. 10.
Mond, Sir Robert, J.P., Combe Bank, near Sevenoaks, Kent.
Money-Coutts, Capt. The Hon. Hugh (L.M.).
Monie, Miss E. M., Somerset Farm Institute, Cannington, Bridgwater.
Mono Containers, Ltd. (represented by H. L. Usborne), Park Royal, N.W. 10.
Monsell, Lady Eyres, C.B.E., Dumbleton Hall, near Evesham, Worcestershire.
Montagu, Hon. G. S., Black Lake Poultry Farm, Egham, Surrey.
Montgomerie, A. W., Lessnessock, Ochiltree, Ayrshire.
Moore, Mrs. R., Hammer House, Sutton Bridge, Wisbech.
Moore, Miss V., Lancs. C.C. Dairy School, Hutton, nr. Preston.
Moore, W. E., Baddiley Farm, Nantwich, Cheshire.
Moore, W. P., Whitehall, Mealsgate, Cumberland (L.M.).
Moores, James, Greylands, Princes Risborough, Bucks.
Morcom, Mrs. Reginald K., The Clockhouse, Bromsgrove.
More-Molyneux, Brig.-Gen. F. C., Loseley Park, Guildford, Surrey.
Morgan, D. J., Lampeter, Cardiganshire.
Morgan, Rev. E. A. D., Trefonen Rectory, Oswestry, Salop.
Morgan, G. T., Hyfrydle, Penparcau, Aberystwyth.
Morgan, H., Great Gobions Farm, Hertford.
Morgan, J. Pierpont, Estate Office, Wall Hall, Watford, Herts. (All communications to John Fleming).
Morris, Capel, Ingleside, The Drive, Hove (L.M.).
Morse, Capt. F. A. V., Upper Cowden, Five Ashes, Sussex.
Morton, E. P., Salroyd House, Low Moor, Bradford.
Morton, Robert, & Co., Ltd., Trent Works, Burton-on-Trent.
Mountain, H. S., Groombridge Place, Kent.
Moyne of Bury St. Edmunds, Lord, 10, Grosvenor Place, S.W. 1.
Muddell, W. A., Thoroton, Aslockton, Notts.
Muirhead, Major A. J., M.P., Haseley Court, Oxford.
Muller-Rowland, J., Church Hill House, Horsell, Woking.
Munday, Allan, Lavant Street, Petersfield.
Mundy, Major G. M., Red Rice, Andover, Hants.
Munnings, W. G., The Rookery, Weybread, Harleston, Norfolk (L.M.).
Munro, A., Leanach, Culloden Moor, Inverness.
Murdock, J. K., 95, Bothwell Street, Glasgow.
Murphy, Miss R., Munster Institute, Cork.
Murray, Alexander, Kilfillan, Glenluce, Wigtownshire.
Murray, H., Howard Dairy, Barbadoes Road, Kilmarnock.
Muzzlewhite, G. H., Redland, Tavistock, Devon.

Napier, Major C., East Mill, Fordingbridge, Hants.
Nathan, J. & Co., Ltd. (represented by W. H. Cummings), 28/32, Chiswell Street, London, E.C. 1. (L.M.).
National Society for Epileptics (represented by E. Reddaway), The Orchards, Chalfont Colony, Gerrards Cross.
Neal, E. D. C., Ivanhoe, Shinfield Road, Reading.

Neale & Gough (represented by A. R. Gough), Corsham, Wilts.
Neaverson, Arthur, Peakirk, Peterborough, Northampton.
Neaverson, H., Airedale, Dogsthorpe, Peterborough.
Nell, W. A., "Fir Island," The Ridgeway, Mill Hill, N.W. 7.
Nelson, W. H., The Launds, Cockerham, near Lancaster (L.M.).
Neumann, Sir Cecil, Bart., Burloes, Royston, Herts.
Newman, W. J., Hall Farm, Burnham-on-Crouch, Essex.
Newton, N., Copshurst Farm, Lightwood, near Longton, Staffs.
New Zealand, High Commissioner of (represented by Alexander Crabbe, F.R.C.V.S.), Produce Office, 413, Strand, W.C. 2.
Nicholas, Miss A. J. W., County Hall, Truro (H.M.).
Nichols, Arthur, Park Farm, Northwood, Middlesex.
Nicholson, Col. A. F., Stockwell House, Leek, Staffs.
Nicholson, Major H. B., Mappercombe Manor, Melplash, Dorset.
Nicholson, John, 10, Great George Street, London, S.W. 1.
Nielsen, C. F., Avonlea, Dartington, Totnes, S. Devon.
Nix, George, The Green, Winchmore Hill, N. 21.
Noble, Miss Edith, Farm Institute, Penkridge, Stafford.
Noden, A., Aston Lower Hall, Worleston, Nantwich, Cheshire.
Noel, Mrs. H. C., Market Overton, Oakham, Rutland.
Norbury, Miss D. G., Silverbeach, Pevensey Bay, Sussex.
Norbury, Miss S. G., Egmont, St. Mary's Lane, Sidley, Sussex.
Norman, R. C., Moor Place, Much Hadham, Herts.
Norrish, R. S., & Sons (represented by W. H. Norrish), R.S.N. Dairy Farms, Sampford Peverell, Devon.
North, M. F., Allangate, Rustington, Sussex.
Nunnerley, T. W., Crudgington Manor, Wellington, Salop.
Nurse, F. G., Wick, Coxley, Wells, Som.
Nuttall, J. M., & Co., Ltd., Dove Dairy, Hartington, Buxton.
Nuttall, William N., Stilton Dairy, Woodeaves, Ashbourne, Derbyshire.

OAKE, WOODS & Co., LTD. (represented by E. B. Down), Gillingham, Dorset.
Oakes, Miss B. F., Staff House, Horticultural College, Swanley, Kent.
Oats, L., Sancreed, New Bridge, Cornwall.
Ogden, H., The Springs, Morton, Bingley, Yorks.
O'Hagan, Major Lord, 16, Eaton Square, London, S.W. 1 (L.M.).
Oliver-Bellasis, Capt. R., J.P., Shilton House, Coventry.
Olympia Oil & Cake Co., Ltd. (represented by H. R. Humphries), Unilever House, Blackfriars, London, E.C. 4.
Onslow, Countess of, Clandon Park, Guildford.
Onslow, Earl of, Clandon Park, Guildford.
Onsy, A., 9, Victoria Square, Reading.
Osman, Major W. H., 19, Doughty Street, London, W.C. 1.
Osmond, L. K., Osmond & Sons, Ltd., Doughty Road, Grimsby (L.M.).

PAGE, Cyril H., Ye Olde Cottage, Sherborne, Dorset.
Page, Edmund, Ivythorne Manor, Street, Somerset (L.M.).
Page, F. H., Woodlands, Gt. Horkesley, Colchester.
Page, S. Palgrave, J.P., 27, Oakwood Court, Kensington, London, W. 14.
Palethorpes, Ltd. (represented by H. Palethorpe), Dudley Port, Staffs.
Palmer, Alfred, J.P., Wokefield Park, Mortimer, Berks.
Palmer, G. A., Ltd., Wykin, Hinckley.
Palmer, G. C. W., Sheene Manor, Meldreth, near Royston, Herts. (L.M.).
Palmer, L. T., 3, Arundel Gardens, Westcliff-on-Sea.
Palmer, Mrs. W. Howard, Heathlands, Wokingham, Berks.
Palmer, Reginald H. R., Hurst Grove, Twyford, Berks. (L.M.).
Palmer, Thomas W., 10, Lloyd's Avenue, London, E.C. 3.
Pandya, B. U., San Thome Dairy Farm, Mylapore, Madras, India.

Pape, Mrs. A. M., Forest Lodge, Binfield, Bracknell, Berks.
Parish, Miss L., Greenacres, Adlington, near Macclesfield.
Parker, Robert E., Easton Hall, Norwich, Norfolk (L.M.).
Parker, R. W., Cooks Pitt, Faddiley, Nantwich.
Parkin, Lt.-Col. J. F.,
Parkinson, B., Creskeld Hall, Arthington, Yorks.
Parr, L. H., The Mile House, Leighton, Crewe.
Parr, Roger C., Grappenhall, Heyes, Warrington (L.M.).
Parsons, E. V. E., Buckworth, Whiteparish, Salisbury.
Parsons, J. D. Toogood, jun., Grasmere, Hurstpierpoint, Sussex (L.M.).
Parsons, R. C., 62, Portland Road, Holland Park Avenue, W. 11.
Parton, Stanley, Weston Hall, Crewe.
Patmore, C., Medcalf Dairy Farm, Enfield Lock, Middlesex.
Paton, Mrs. I. R., Inverugie, Gartmore Road, Paisley.
Paul, Stuart, Freston Lodge, near Ipswich.
Payne, Cyril, 27, Parkview Court, Hurlingham, London, S.W. 6 (L.M.).
Paynter, Mrs. M. M., The Hill, Blackford, Carlisle.
Peacock, Thomas, Cotton Edmunds, near Chester.
Pearce, N., Lower Court Farm, Long Ashton, near Bristol.
Pearson, Hon. Clive, Parham, Pulborough (L.M.). (All communications to C. Sherston, Parham Estate Offices, Pulborough, Sussex).
Pearson, J., Altyre Estates Office, Forres.
Pearson, W., New Hall Farm, Pilling, near Preston.
Pedley, G. A., South Street, Crewe.
Peel, John G., Peover Hall, Knutsford, Cheshire (L.M.).
Pegler, H. S. Holmes, Coombe Bury, Foley Road, Claygate, Surrey (H.L.M.).
Pelly, Mrs. H. R., Lyndsays Farm, Ingatestone, Essex.
Pelly, Miss K., Theydon Place, Epping, Essex (L.M.).
Pennington, Sydney, Hollygrove, Newport, Salop.
Penrhyn, Lord (Agent, Major R. J. Wordsworth), Penhryn Estate Office, Bangor.
Perfect Dairy Machines, Ltd. (represented by J. W. Samels), Vauxhall Station, London, S.E. 11.
Perkins, Percy E. W., The Bowers, Holme Lacy, Hereford.
Perkins, T. W. M., Ufton Court, Holme Lacy, Hereford.
Perry, Harry, 6, Alverton Street, Penzance.
Peskett, G. L., M. A., National Institute for Research in Dairying, Shinfeld, near Reading.
Peters, M. J., Cuillins, Manor Road, Reigate.
Petre, Oswald, J.P., D.L., Bosworth Hall, Rugby, Warwickshire.
Pettifer, T., & Co., Ltd. (represented by T. P. Pettifer), Eydon, Rugby.
Pettit, S. W., 46, High Street, Walthamstow, E. 17.
Peyton, Mrs. T. H., Colomendy, Mold, Flintshire.
Phelan, M. F., Cleave Barton, Northam, Devon.
Philipson, J., Street Farm, Jevington, Polegate, Sussex.
Philipson, Miss J., Dairy School, West of Scotland Agricultural College, Auchincruive, Ayr.
Phillimore, Admiral Sir Richard F., K.C.B., K.C.M.G., Shedfield House, Shedfield, Hants.
Phillips, A. G., "Chesworth," Highfield Avenue, Pinner, Middlesex.
Phillips, Mrs. A. E., Old Dalby Hall, Melton Mowbray.
Phillips, E. S., East Hill House, Church Road, Wimbledon, S.W. 19.
Phillips, John F., Moldavia, Branksome Park, Bournemouth.
Philpott, Ernest E., Manstone Court Farm, near Ramsgate, Kent.
Pickering, Mrs. A., The Moothall, Newcastle-on-Tyne.
Pickford, Herbert H., Manor Farm, Patney, Devizes.
Pickles, John S., Salterforth, near Colne, Lancs.

Piddington Estates, Ltd. (represented by T. N. Cave), Horton, Northampton.
Pidduck, T. S., Corbrook Court, near Audlem, Cheshire.
Piggott Bros., & Co., Ltd. (represented by E. J. P. Clay), 220-226, Bishopsgate, London, E.C. 2.
Pilbrow H. J., Mapleton, Four Elms, Edenbridge, Kent.
Pinkstone, G. W., Lower Park Row, Bristol.
Pinkstone, Ltd., Lower Park Row, Bristol.
Plymouth, Earl of, Hewell Grange, Redditch, Worcs.
Pocock, W. D., Bolingbroke, Ealing Common, London, W. 5.
Poll, W. W., Beech Grove, Hethersett, Norwich.
Pool, David, Ickenham Manor, Uxbridge.
Poole, H. & B. (represented by H. Poole), Hill House, Lawford, Essex.
Pope, Miss E. J., Rectory Farm, Slimbridge, Glos.
Popham, H. Leyborne, J.P., Hunstrete House, Pensford, near Bristol.
Portch, Frank, Leigh Farm, Wincanton, Somerset.
Porter, John, B.Sc., Crowhamstone, Stone, Aylesbury, Bucks.
Pote, F. W., Shadrack, Berry Pomeroy, Totnes, South Devon.
Potter, Lieut.-Col. W. A., Lambley House, Woodborough, Notts.
Poultry World, Ltd. (represented by R. W. Haddon), Dorset House, Stamford Street, S.E. 1.
Powell, W. E., Cruckmoor Farm, Prees, Salop.
Preece, T. Percy, Broadwood Hall, Leominster, Hereford.
Prescott, W. H., Highlands, Woldingham, Surrey.
Press, E. W. S., B.Sc., A.I.C., F.C.S., 252, Caledonian Road, London, N. 1.
Press, W. E., Wolvers, Reigate, Surrey.
Price, Miss A. S., County Offices, Haverfordwest.
Price, T. H., Westfield, Hendon Avenue, Finchley, London, N. 3.
Prichard, Miss A. A., Midland Agricultural College, Sutton Bonington, Loughborough.
Prideaux, Chas., Motcombe, Dorset.
Prideaux, George E., The Creamery, Stalbridge, Dorset.
Prince-Smith, W., Hillbrook, Keighley.
Pritchard, Miss Eleanor, County Offices, 37, Foregate Street, Worcester.
Procter, T., Brick House, Chipping, Lancs.
Prosser, H. E., Gt. Pinley Farm, Hatton, near Warwick.
Prosser, W., Sluice House, Peterstone Wentlloog, Rumney, Cardiff.
Provan, E. M., Mansfield Farm, Iver Heath, Bucks.
Pryor, Lt.-Col. W. M., D.S.O., Lamnock Manor, Stevenage. (All communications to Secretary, Estate Office, Weston, Stevenage, Herts.).
Punter, A. W., County Hall, Ipswich.
Purvis, G. H., Monmouth Agricultural Institution, Usk, Mon.
Pye, James, Ltd. (represented by James Pye), The Creamery, Kirkham, nr. Preston.
Pyman, Mrs. J. S., Norsebury, Sutton Scotney, Hants.

Raby, Tom, Goxhill, S.O., Lincoln.
Radcliffe, G. B., Pool Bank, Tarvin, Cheshire.
Radnor, Earl of, Longford Estate Office, Alderbury, Salisbury (L.M.).
Rae, A. H., Bengairn, South Drive, Upton, Wirral.
Raison, M., 43/4, Shoe Lane, London, E.C. 4.
Rankin, A. M. & H., Ltd. (represented by D. Rankin), Rochford, Essex.
Rathcreedan, Lady, Bellehatch Park, near Henley-on-Thames.
Ray, R., Eastfield, Spinney Hill, Northampton.
Rayleigh, Lord, The Bury, Hatfield Peverel, Essex. (All communications to G. M. Strutt, Estate Office, The Bury, Hatfield Peverel, near Chelmsford).
Rea, Eric, Agricultural Education Dept., 2, College Street, Gloucester.
Read, F., Polar Works, Manchester Road, Wilmslow, near Manchester.

Read, S. T., 40, China Street, Bulwell, Notts.
Reading, Sydney, Rectory Farm, Langford, Lechlade.
Reece, Frank A., 9-15, Hawke Street, Liverpool.
Reed, W. J. C., The Archway, Cirencester Street, Paddington, W. 2.
Rees-Mogg, Mrs. G., Clifford Manor, Stratford-on-Avon.
Reeves, Mrs. M., Knapp House, Clevedon, Somerset.
Reid, Mrs. F. M., Cherrytrees, Trimley St. Mary, Suffolk.
Reid, W., Nirvana, Longhill Avenue, Ayr.
Rempler, R. W., Alka Works, Minerva Road, N.W. 10.
Renouf, A. E., Glenfarg, Marlborough Avenue, Reading.
Renshaw, S. H., O.B.E., Myerscough House, Garstang, Lancs.
Rice, W., F.L.S., F.I.A.C., Barry House, Norsey Road, Billericay, Essex (L.M.).
Rich, Mrs. E., Wretham Hall, Thetford, Norfolk.
Richards, Miss O. M., 42, The Highlands, Edgware, Middlesex.
Richards, R., 2, Buckingham Road, Kingsland, N. 1.
Richardson, Capt. Alan J. M., Southrop Manor, Lechlade, Glos.
Richardson, C. S., Wheelbirks, Stocksfield, Northumberland.
Richardson, R., Prospect House, Scotforth, Lancaster.
Richmond & Chandler, Ltd. (represented by E. Mitchell), Globe Works, Southall Street, Manchester.
Rickeard, J. W., Scots Hall, Westleton, Suffolk.
Ricketts, A., United Dairies (London), Ltd., 106, Windmill Lane, E. 15.
Ridgeway, Miss U. A., N.D.D., B.D.F.D., West Corner, South Ella Estate, Kirkella, near Hull.
Ringer, A. Beverley, Mere House, Seething, Brooke, Norwich (L.M.).
Rippin, Capt. A. C., Thornton Lodge, near Horncastle, Lincs.
Robarts, C. M., 100 Acre Farm, Northwood, Middlesex.
Robarts, G. L., New House Farm, Sheering, Harlow, Essex.
Roberts, Charles H., Boothby, Brampton, Cumberland.
Roberts, Major H. D., M.C., Hullers, Beare Green, Surrey.
Roberts, J. H. N., Vinchelez de Haut Manor, St. Ouens, Jersey (L.M.).
Roberts, R. J., Yoke House, Pwllheli, Carnarvonshire.
Roberts. T. G., Colemore House, Ellesmere, Salop.
Roberts, W. H. W., Burtholme, Brampton, Cumberland.
Roberts & Birch, Ltd. (represented by J. H. Birch), Mosley Street, Burton-on-Trent.
Robertson, Dr. G. S., D.Sc., F.I.C., Ministry of Agriculture, Stormont, Belfast.
Robinson, A., Old Dads House, Mellor, near Blackburn.
Robinson, F. L., The Little House, Kingston Road, Leatherhead.
Robinson, H. G., Midland Agricultural College, Sutton Bonington, Loughborough.
Robinson, Joseph C., Oaklea Warren, Newick, Sussex.
Robinson, Theodore R., 25, Campden Hill Gardens, London, W. 8.
Rogers, B. P., Llanerthil, Llandenny, Usk, Mon.
Rollings, A., Green Bank, Crewe Road, Nantwich.
Rook, John, Town Farm, Wooburn Green, High Wycombe.
Roper, C., The Laurels, Lenborough, Buckingham.
Rose, T. A., Churchill Heath, Kingham, Oxford.
Ross, Charles, 1, Elmwood Gardens, Jordanhill, Glasgow.
Ross, Colin D., 1, Richmond Road, Exeter.
Rossiter, J., Cholwells, Kingsbridge, S. Devon.
Rotherham, Oswold E., Saxby-all-Saints, Brigg, Lincs.
Rottenburg, F. A., Lochlane, Crieff, Perthshire (L.M.).
Roussel, C. J., 209, Grand Route, Loos-lez-Lille, France.
Rowallan, Lord, Rowallan, Kilmarnock (L.M.).
Rowden, A. O., Hammett's Dairies, Ltd., 175/6, Sidwell Street, Exeter.
Rowling, John J., 52, Walnut Tree Walk, Kennington Road, S.E. 11.

Rowling, J. Ridley, 52, Walnut Tree Walk, Kennington Road, S.E. 11.
Rowntree, Alfred, The Dairy, Coverham, Middleham, Yorks.
Royal Agricultural and Horticultural Society of Guernsey (represented by E. de Garis, States Arcade, Guernsey).
Rubeck, O. P., Valencia, Meath Green, Horley, Surrey.
Rumbold, G. J., The Manor Farm, Dorney, Windsor.
Runciman, Mrs. H., Doxford, Chathill, Northumberland.
Russell, George P., Bickley Hall Farm, Bickley, Kent.
Rylands, Sir W. Peter, Massey Hall, Thelwall, near Warrington.

SADLER, A. P., Brick Wall Farm, Audlem, Crewe.
Sadler, James, Brassey Hall, Willaston, Nantwich, Cheshire.
Sadler, Mrs. A. F. Hayes, Charlton Abbots, Andoversford, Glos. (L.M.).
St. Clere Estates, Ltd. (represented by Capt. W. Briggs), Estate Office, St. Clere, Kemsing, Kent.
St. Cyres, Viscountess, Walhampton, Lymington, Hants.
St. Maur, H., J.P., D.L. (L.M.).
Sainsbury, F., Blunt's Hall, Little Wratting, Haverhill, Suffolk.
Salopian Cattle Bowl Co. (represented by H. W. Batkin), Bank Farm, Prees, Whitchurch, Salop.
Saltmarsh, H. A., Barrow Hall, Bury St. Edmunds.
Sanderson, D. H., The Birks, Stamfordham, Northumberland.
Sanderson, F. H., Eshott Hall, Felton, Northumberland.
Sanderson, Miss W. J., Underwood, Riding Mill, Northumberland.
Sandwich, Earl of, Hinchingbrooke, Huntingdon.
Sankey, G. C., Down Lodge, Fairlight, Hastings.
Sargent, Miss M. H., 38, Flora Avenue, Darlington.
Savill, P. R. L., Welford Grange, near Rugby.
Savory, A. J., Highfields, Gt. Ryburgh, Norfolk.
Scalford Dairy Co., Ltd. (represented by G. M. Kirk), Scalford, Melton Mowbray.
Scatchard, T., Scarah Bank Farm, Ripley, Yorks.
Scatliff, H. P., Glebe Place, Pulborough, Sussex.
Scothern Dairy Co., Scothern Manor, Lincoln.
Scotney, T. M., West End Mills, St. Ives, Hunts.
Scott, G. A., Frome Cliff, Stapleton, Bristol.
Scott, H. H., Hartwell, Hartfield, Sussex.
Scott, L., Worlington Poultry Farm, Mildenhall, Suffolk.
Scott, R., Manchester House, Lea Brooks, Alfreton, Derbyshire.
Scottish Milk Marketing Board (represented by T. S. Henderson), 95, Bothwell Street, Glasgow, C. 2.
Scrimgeour, W., Wissett Hall, Halesworth, Suffolk.
Sears, Arthur, 684, High Road, Leytonstone, Essex.
Sears, John L., Coxland, Ewhurst, Surrey.
Secura Incubator Co., Ltd. (represented by E. F. Fairbairn), Willow Holme Mills, Caldewgate, Carlisle (L.M.).
Seymour, Major Sir Edward, Iver Lodge, Iver, Bucks.
Shanks, Robt., Halland Park, East Hoathly, Sussex.
Shapland, G. F. D., Green Farm, Claverham, near Bristol.
Shapland, James L., Chaldon Court, near Caterham, Surrey.
Sharp, Sir Herbert, Bart., Morley Poultry Farm, Hasketon, Suffolk.
Shaw, H., Winterley House, Crewe.
Shaw, Miss V., 9, Halkin Street, London, S.W.1.
Shearman, Miss A. A., Shire Hall, Nottingham.
Sheldon, T. H., Cotham Manor, Newark, Notts.
Shelley-Rolls, Lady (Agent, Clement Lipscomb), The Hendre, Monmouth.
Shelley-Rolls, Sir John C. E., Bart., Avington, Alresford, Hants.
Sheppard, Miss A., British Dairy Institute, Reading.
Shirley, J. W., Silverton House, Woughton, Bletchley, Bucks.

Shotton, Miss S. J., Drummer Hill, Easby, Gt. Ayton, Yorks.
Shuttleworth, R. Kay, Meads Place, Eastbourne (L.M.).
Sibun, F. C., The Milk Industry, 8/9, Essex Street, W.C. 2.
Silcock, R., & Son (represented by T. B. Silcock), Stanley Hall, Union Street, Liverpool.
Sillars, R., & Son (represented by A. W. M. Sillars), Ickham Court, Canterbury.
Simmonds, Hunt & Montgomery, Ltd. (represented by G. H. Parry), Albion Buildings, Boundary Street, Liverpool.
Simms, J. C. W., Southgate House, Chichester.
Simon, E. Ll., Heywood Mount, Tenby, S. Wales.
Simpkin & James, Ltd. (represented by B. H. Crook), Leicester.
Skidmore, Miss E., Ashley Leigh, Box, Wilts.
Slattery, Miss N., Staff House, Horticultural College, Swanley, Kent.
Sloan, Mungo, Hunter House, Lochmaben.
Smart, W. H., & Co., Ltd. (represented by W. H. Smart), Wrentham Street, Birmingham.
Smith, A., East Sussex Milk Recording Society, 197, High Street, Lewes.
Smith, A. Carlyle, Sutton Hall. Woodbridge, Suffolk.
Smith, A. D. B., Animal Breeding Research Dept., West Mains, Edinburgh (L.M.).
Smith, Clement C., Walton Hall, Felixstowe.
Smith, David, Kilmaurs Mains, Kilmarnock.
Smith, Eustace Abel, Longhills, Lincoln (L.M.).
Smith, F. Clement, Walton Hall, Felixstowe.
Smith, G. R. H., Oxton Hall, Tadcaster.
Smith, James H., Peet's Lane, Churchtown, Southport.
Smith, Miss E. M., Grange Court, Portington, Eastrington, Hull.
Smith, Miss Jervoise, Sandwell, Totnes, S. Devon.
Smith, Hon. Mrs. E. M., Gumley Hall, Market Harborough.
Smith, J. Cowper, 38, Seaside Road, Eastbourne.
Smith, J. Hunter, Oaklands, near St. Albans, Herts.
Smith, J. W. & Son (represented by H. A. Smith), Monkton Court, Minster, Thanet, Kent.
Smith, Owen H., Langham House, Langham, Oakham, Rutland.
Smith, Percy, Whitchurch, Salop.
Smith, W. A., 33, Head Street, Halstead, Essex.
Smith, W. H., & Co., Ltd. (represented by W. H. Smith), Whitchurch, Salop.
Smith, W. P., Moorlands, Sale, Cheshire (L.M.).
Snell, William Follett, Marsh Farm, Yeovil, Somerset.
Snewin, F. W., 192, Lower Clapton Road, Lower Clapton, London, E. 5.
Snewin, S. P., 67-69, Old Hill Street, Stamford Hill, London, N. 16 (L.M.).
Snowden, A., Clayton Hall, Crosshills, Yorks.
Soames, Mrs. Geraldine, Long Buckby Wharf, Rugby.
Solley, F. S., Mongeham Farm, Deal.
Solomon, J., Radbourne, Chilton Avenue, Stowmarket, Suffolk.
Soper, James, Low Hall Farm, Chingford, E. 4.
South Africa, Government of the Union of (represented by the Trade Commissioner), Trafalgar Square, London, W.C. 2.
South Down Farm, Ltd. (Capt. E. Freeth), 50, Hill Road, Wimbledon, S.W. 19.
South Western Dairies, Ltd. (represented by W. J. Cordy), Sherborne, Dorset.
Sparrow, M. C. J., 70, Grand Parade, Harringay, N. 4.
Spence, Miss A. R., Horsehill, Bewdley, Worcs.
Spicer, Lady A. E. M., Spye Park, Chittoe, Chippenham, Wilts.
Spiers, A. A. Hagart, Eastbury Manor, Compton, Guildford.
Spillers, Ltd. (represented by C. W. Edwards), Advisory Dept., 40, St. Mary Axe, E.C. 3.
Spottiswoode, Mrs. E. H., Rooksnest, Lambourn, Berkshire.
Spratt's Patent, Ltd. (represented by S. T. Lethbridge), 58, Mark Lane, E.C. 3.

Sproat, J. B., Lennox Plunton, Borgue, Kirkcudbrightshire.
Sproston, C. T., Catten Hall, Frodsham, Cheshire.
Stafford, J. G. W., The Midland Agricultural College, Sutton Bonington, Loughborough.
Stafford, O. G. W., Kegworth, Derby.
Stair, Earl of, Lochinch Castle, Stranraer.
Stallard, T. H., Lower Farm, Darlingscott, Shipston-on-Stour.
Stanbury, P., Newton Barton, Drewsteignton, Exeter.
Stanhope, Earl, D.S.O., M.C., Chevening, Sevenoaks.
Stanley, Lord, Holwood, Keston, Kent.
Stapleton, Eric S., Owles Hall, Crews Hill, Middlesex (L.M.).
Stapleton, J. Gillard, Owles Hall, Crews Hill, Middlesex.
Stapleton, Mrs. J. G., Owles Hall, Crews Hill, Middlesex.
Steed, Percy W., Finglesham and Marley Farm, Eastry, Kent.
Steel, A., Temple Farm, Prittlewell, Southend-on-Sea.
Steel, J., Manor Farm, Grazeley, Reading.
Steel, John G., Rowan Lea, Blackwell Road, Carlisle.
Steel, N. R., Hookland Estate, Scaynes Hill, Sussex.
Steele, J. H., Staple Hill, Wellesbourne, Warwick.
Stent, S. J., Beechlands, Bedhampton, Hants.
Stephen, Miss Mary, Thorntons Farm, Northaw, near Potters Bar.
Stephens, Horace W., Box 2, G.P.O., Gloucester.
Stephens, Theo. A., Frensham Manor, near Farnham, Surrey.
Stern, H. C., 12, Farringdon Avenue, London, E.C. 4.
Stewart, Sir E. O. MacTaggart, Bart., Ardwell Estates, Ardwell, Wigtownshire.
Stewart, Miss M. H., Hamewith, Main's Park, Chester-le-Street.
Still, William H., Addington, Surrey.
Stockdale, T. R., 33, Scalford Road, Melton Mowbray.
Stockley, B. P., Kent's Farm, Littlebury, Saffron Walden, Essex.
Stone, Alfred, Stoke Farm, Stoke Bardolph, Notts.
Storms Farm Dairy, Ltd. (represented by J. A. Spedding), Storms, Keswick.
Strachie, Lord, P.C., Sutton Court, Pensford, Bristol, Glos. (L.M.).
Stradbroke, Earl of, K.C.M.G., C.B., C.V.O., C.B.E., 26, Belgrave Square, S.W. 1.
Strafford, Earl of, Dancer's Hill, South Mimms, Middlesex.
Straker, Mrs. John C., Stagshaw House, Corbridge, Northumberland.
Street, G. E., 83-93, Duncan Road, Portsmouth.
Strutt, Gerald M., Newhouse, Terling, Chelmsford.
Strutt, Mrs. G. M., Newhouse, Terling, Chelmsford.
Stuart, Thomas, New Hall, Sowerby, near Garstang.
Stubbs, Miss Jessie, Lancashire C. C. Dairy School, Hutton, near Preston.
Studley College (represented by Miss E. H. Ekins), Studley, Warwickshire.
Sutton & Sons (represented by L. Noel Sutton), Reading.
Sutton, E. P. F., Erlegh Park, near Reading.
Sutton, G., Pewit Hall, Hunsterson, Nantwich.
Sutton, M. A. F., Sutton & Sons, Reading.
Sutton, R. H., & Son, Redlands Farm, Horeham Road, Sussex.
Sutton-Gill, H., 7, Manor Park Road, Manor Park, London, E. 12.
Swain, Percival (Platt & Swain), Wem, Salop.
Swales-Johnson, Mrs. M., Evendon Lodge, Wokingham.
Swan, J. W., Upsall Hall, Nunthorpe, Yorks.
Swann, H. H., Little Boarzell, Hurst Green, Sussex.
Swaythling, Lord, Townhill Park, West End, near Southampton.
Swift & Sons, Olympia Works, St. Thomas Street, Scarborough.
Swithinbank, C., Shrubbs Farm, Baynards, Sussex.
Swithinbank, H., Maybanks, Rudgwick, Sussex (L.M.).
Symonds, Arthur, Rockylls Hall, Shelland Bury St. Edmunds.
Symons, G. W., Wells, Somerset.

TAIT, Mrs. J., Almont, Pinwherry, Ayrshire.
Tangye, A. C., Silligrove, Far Forest, Rock, S.O., Worcestershire (L.M.).
Tattersall, A. C., Watlingford, Bowdon, Cheshire.
Tattersall, Dr. W. H., Plas Gwyn, Gannock Park, Deganwy, N. Wales.
Taylor, Cortlandt, Platt House Farm, Wrotham Hill, Kent (L.M.).
Taylor, E., Glena Mount, Benhill Wood Road, Sutton.
Taylor, E. H., Ltd. (represented by W. L. Lordan), Beehive Works, Welwyn.
Taylor, F. H., New Zealand Govt. Offices, 415, Strand, W.C. 2.
Taylor, John, Lauriston, Goldhanger, Maldon, Essex.
Taylor, J. S., Kirby, Whatcote, Shipston-on-Stour.
Taylor, Miss M. C., Somerset Farm Institute, Cannington, Bridgwater.
Templeton, G., Carnell Home Farm, Hurlford, Ayrshire.
Terry, F. N., Chebbard, Dorchester, Dorset.
Terry, Frank W., Old Nunthorpe, York.
Tetley, G., Weyhouse, Worth, Sussex.
Thomas, D. Ll., Llwynhaid, Bettws, Newport, Mon.
Thomas, S. B., University College, Aberystwyth.
Thomas, Alderman T., Caeffair, Llangemnech, Llanelly.
Thomas, W. A., County Offices, Aylesbury, Bucks.
Thomas, W., Blaenant, Newcastle Emlyn, Cardiganshire.
Thompson, A. P., The Feathered World, 9, Arundel Street, London, W.C. 2.
Thompson, Major W., Lonesome Farm, Reigate.
Thompson, W. A., Larkenshaw, Chobham, Surrey.
Thomson, G. Sutherland, Kenmore Farm, Whelpley Hill, Chesham.
Thomson, W. J., 98, Holm Street, Glasgow (L.M.).
Thorley, Joseph, Ltd., King's Cross, London, N. 1.
Thorlund, J. P., 164, Howard Street, Glasgow, C. 1.
Thornber, Edgar, Mytholmroyd, Yorks. (L.M.).
Thornbery, Miss K. M., Chadacre Agricultural Institute, Hartest, Bury St. Edmunds.
Thornborrow, T. J., 48, Wordsworth Street, Penrith.
Thornton, Francis Hugh, J.P., Kingsthorpe Hall, Northampton.
Tickle, J., & Sons (represented by Mrs. A. M. Tickle), Brompton Dairy Farm, Chatham, Kent.
Tilbury, H. W., High Street, Potters Bar.
Timberlake, J., Hastoe Farm, Tring.
Tinsley, E. W., Durham County Mental Hospital Farms, Winterton, near Stockton-on-Tees.
Tipper, B. C., & Son (represented by C. N. Tipper), The Veterinary Chemical Works, Birmingham.
Tobey, W. B., Longmoor Farm, Aston Abbotts, Bucks.
Todd, Alec, British Dairy Institute, Reading.
Tomkinson, Major C. W., Willington Hall, Tarporley, Cheshire.
Tomlinson, H. W., Polebarn House, Trowbridge, Wilts.
Tory, C. E., Higher Burton House, Dorchester.
Tory, Robert N., Anderson, Blandford, Dorset (L.M.).
Towers, Miss S., Woodside, Duxbury, near Chorley, Lancs.
Townend, Miss R., Shropshire Technical School for Girls, Radbrook, Shrewsbury.
Townshend, Mrs. Mildred H., Pabo Hall, Llandudno Junction, N. Wales.
Trafford, A., Dulands Farm, Bradbourne, Ashbourne, Derbyshire.
Travers, S. J., "Benward," Potter's Corner, Ashford, Kent.
Trench, Col. Hon. W. le Poer, St. Hubert's, Gerrard's Cross, Bucks. (L.M.).
Trenchard, Miss H. M., East Membury Farm, Membury, Axminster, Devon.
Tresidder, W. B. V., English Dairies, Crewkerne, Somerset.
Trevor, Stanley S., 7, Weaver Terrace, Northwich.
Trippe, Miss M. M., Monmouthshire Agricultural Institute, Usk, Mon.
Troup, L. G., Newburgh House, Winchester.
Trower, W. G., Stansteadbury, Ware, Herts.

Tudge & Mayberry, Whittingslow, Marsh Brook, Salop.
Tunbridge Wells & South Eastern Counties Agricultural Society (The Secretary), 87, High Street, Tunbridge Wells.
Turner, A., Dean, Goodleigh, Barnstaple, Devon.
Turner, Miss A. I., Hortons, Cuckfield, Sussex.
Turner, C., 7/8, Queen's Square, High Wycombe.
Turner, H. B., Malverleys, near Newbury.
Turner, James, West Bank Farm, South Anston, near Sheffield.
Turner, James, Loaninghead, Balfron Station, Stirlingshire.
Turner, W., Offerton, Hindlip, Worcester.
Turnor, Christopher, Stoke Rochford, Grantham.
Turtle, Miss B. F., 81, Cambridge Terrace, Hyde Park, London, W. 2.
Tustian, R., The Leys, Great Tew, Enstone, Oxon.
Tutton, G. O., British Poultry & Animal Research Co., Westminster Bank Chambers, St. Mary's Road, Liverpool, 19.
Tuxford & Tebbutt, Ltd. (respresented by John F. Crosher), Melton Mowbray.
Twentyman, W., Moor Court, Sparsholt, Winchester (L.M.).

U.D. ENGINEERING CO., LTD. (represented by Ben Davies), Abbey Works, Cumberland Avenue, Park Royal, N.W. 10.
United Dairies, Ltd. (represented by J. H. Maggs), 34, Palace Court, W. 2.
United Glass Bottle Manufacturers, Ltd. (represented by H. W. Wadsworth), 40/43, Norfolk Street, Strand, London, W.C. 2.
Upton, Major Edward, Coptfold Hall, Ingatestone, Essex (L.M.).

VAN HAEFTEN, BARON, St. James' Club, Piccadilly, London, W. 1.
Venesta, Ltd. (represented by H. Rutherford), Vintry House, Queen Street Place, London, E.C. 4 (L.M.).
Venner, Richard J., Westgate, London Road, Reading, Berks.
Vernon, R., Aychley, near Market Drayton, Salop.
Vigus, W. H., Revels Croft, Bengeo, Hertford.
Viking Rennet Co. (represented by J. A. Campbell), 19, Clapton Square, E. 5.
Villar, Capt. Sidney, F.R.C.V.S., Amersham Common, Bucks. (L.M.).
Vincent, C. G., Beomonds Farm, Chertsey, Surrey.
Vincent, Frederick, Oak Farm, Northill, Biggleswade, Beds.
Viney, P. H., Clays Copse, Sway, Hants.
Voelcker, Dr. J. A., 20, Upper Phillimore Gardens, Kensington, W. 8 (L.M.).
Vosper, Major N., Plas Coch, Ruthin.
Voss, Edward J., 202, Markhouse Road, Walthamstow, London, E. 17.

WAIDE, W., & SONS (represented by W. Waide), Crown Point Road, Leeds.
Walford, J. B., Gusty Green Farm, Crewe.
Walker, A. E., Lower House Farm, Dinas Powis, Cardiff.
Walker, E. G. F., The Hollies, Chew Stoke, near Bristol.
Walker, E. O. F., The Hollies, Chew Stoke, near Bristol.
Walker, F., Russia Hall, Tattenhall, Cheshire.
Walker, Harold, Marley Brow Farm, Bingley, Yorks.
Walker, H. E., The Farm, Llanedarne, near Cardiff.
Walker, Lt.-Col. H. S., Park House, Wortley, near Sheffield.
Walker, Capt. L. W., The Nook, Wells, Som.
Walker, R., Hatton Hall, near Chester.
Walker, S. E., Tilstock Road Farm, Whitchurch, Salop.
Walker & Son (represented by H. J. Walker), 4, Cheapside, Leicester.
Walker-Jones, Colonel F. A., Rocklands, Kendal, Westmorland (L.M.).
Wall, J., Bridge House, Rowsley, Derbyshire.
Wallace, J., Low Ersock, Whithorn, Wigtownshire.
Wallace, J. & R., The Foundry, Castle Douglas.
Wallace, Prof. R., Mid Park House, Kincardine, Fifeshire.

Wallace, Robert, Cherry Tree Hall, Datchworth, Herts.
Wallace, Samuel, Bedwell Park Farm, Hatfield, Herts.
Wallace, Walter, Knebworth, Herts.
Wallace, William E., Poplar Farm, Eaton Bray, Dunstable.
Walley, A. E., Bickerton Hall, Malpas, Cheshire.
Walley, P. H., Towns Green Farm, Wettenhall, Winsford.
Walmsley, B., Skeynes, Edenbridge, Kent.
Walters, R. S., Norfolk Lodge, Sutton Coldfield, Warwickshire.
Walton, J. H., Thurston Hall, Framfield, Sussex.
Wander, A., Ltd. (represented by Sir Harry Hague), 184, Queens Gate, S.W. 7.
Ward, Miss A., Foggathorpe Hall, near Selby, Yorks.
Ward, R. Bruce, Godinton, Ashford, Kent.
Ward, T. L. Cokhay, Repton, Derby.
Ward, T. L. G., Southern Cross, Shaldon, near Teignmouth.
Wardrop, R.R., Bridge of Allan, Stirling.
Ware, H. M., Seletar, Dene Road, Northwood, Middlesex.
Warner, A., The Lawn, Longford, Glos.
Warren, F. C., 115, High Road, South Woodford, Essex.
Warren, Col. J. R., Handcross Park, Haywards Heath, Sussex (L.M.).
Warren, R. A., 19, Foxgrove Road, Beckenham, Kent.
Warwick, Frances, Countess of, Easton Lodge, Dunmow, Essex.
Wasfi, Mohamed, 129, Sharia El Manial, Cairo, Egypt.
Watney, Bertram W. A., Brookwood Corner, Holmwood, Surrey.
Watson, Clem, 77, Paddock Road, Oxhey, Watford.
Watson, Sir Duncan, J.P., 62, Berners Street, London, W.1.
Watson, Miss E., 2, Hill Street, Arbroath.
Watson, Exors. of Sir William G., Bart., Sulhamstead House, near Reading.
Watt, J. W., Townhead, Rockcliffe, Carlisle.
Watts, Col. Humphrey, O.B.E., T.D., Haslington Hall, near Crewe.
Wayland, Lt.-Col. Sir W. A., J.P., Monks Horton, Stanford, Kent.
Webb, Miss E. A., 9, Burley Road, Oakham, Rutland.
Webster, Ralph, Abbey Ironworks, Waltham Cross.
Wedell, Count, Wedellsborg, Assens, Denmark (H.M.).
Weeks, G. K., Northleigh, Colyton, S. Devon.
Weightman, Albert, Middle Herrington Dairy Farm, Durham.
Weir, J. S., The Hall Farm, Bottisham, Cambs.
Welch, Miss I., Somerset Farm Institute, near Bridgwater, Som.
Welford, Edward, 277, Kentish Town Road, London, N.W. 5.
Welford, J. B., Ashridge, Cookham, Berks.
Welford, Sydney, 277/9, Kentish Town Road, London, N.W. 5.
Wellington, Duke of, K.G., G.C.V.O., Ewhurst, Basingstoke, Hants. (L.M.).
Wellington Live Stock Co., Ltd. (represented by J. Jefferson) (L.M.).
Wells, A. E., Broadcroft, Little Hallingbury, near Bishop's Stortford, Herts.
Wemyss, Lady Victoria, Wemyss Castle, Fife.
Westminster, Duke of, G.C.V.O., D.S.O., Eaton Hall, Chester. (All communications to H. P. Hamilton, Woodhouse Farm, Aldford, Chester.)
Weston, A. F. A., Holme Grange, Wokingham, Berks.
Westropp, C. H., Melford Place, Long Melford, Suffolk.
West Somerset Dairy and Bacon Co., Ltd. (represented by J. Cottrill), Greenway Avenue, Taunton.
Wheatley, E. H., Cliftonthorpe, Ashby-de-la-Zouch.
Wheeler, W. J., Mathers Farm, Headington, Oxford.
White, B. H. J., Hill View Farm, Bruton, Som.
White, E., Manor Farm, Motcombe, Shaftesbury.
White, F. C., Markets Division, Ministry of Agriculture and Fisheries, 10, Whitehall Place, London, S.W. 1.
White, Prof. R. G., College Farm, Aber, Bangor, N. Wales.

White, Sir G. Stanley, Bart., Hollywood Tower, near Bristol (L.M.).
White, Sydney T., Sock Dennis Farm, Ilchester, Taunton.
White, Thomas, Hightae, Castle Douglas.
White, W. A., Woodfold, Down Hatherley, Gloucester.
White, W., & Son, Pool Farm, Taunton.
White, W. B., & Sons, Lower Farm, Anstey, Dorchester.
White, W. G., & Sons, Larbourne Farm, Thorney, Iver, Bucks.
White, Tomkins & Courage, Ltd. (represented by R. Clyde), 48, Mark Lane, London, E.C. 3.
Whitehand, W. J., Old Hall, South Walsham, Norfolk.
Whiteman, W. W., Abbotts Lodge, Sandhurst, Glos.
Whiter, J. E., Three Beeches Wood, Kingswood, Tadworth.
Whitley, H., Primley Hill, Paignton, South Devon.
Whitley, Mrs. S. R., Green Gables, Emmer Green, Reading.
Whitley, William, Barton Pines, Blagdon, Paignton, South Devon.
Whitmore, Col. F. H. D. C., Orsett Hall, Essex. (Agent: J. C. Chaplin, Manor Office, Orsett, Essex).
Whitnall, Miss S., Hill Farm, East Hanningfield, Chelmsford.
Whittaker, H. S. & W. G. (represented by H. S. Whittaker), Wardle Bridge, Nantwich.
Whyte, J. M. H., Kirkmabreck, Stranraer.
W.-Hutton-Stott, F., Martin Place, Puttenham, near Guildford (L.M.).
Wickens, B. A., 8, Byron Drive, Cheadle, Cheshire.
Wigan, Mrs. J. T., Danbury Park, Chelmsford.
Wigmore, Alan J., 77, St. Aldate's, Oxford.
Wild, J., junr., Grotto Farm, Over-Peover, near Knutsford (L.M.).
Wilkins, William, Central Farm, Long Marston, Tring, Herts.
Wilks, T. N., Whartons Park, Bewdley, Worcs.
Willatts, J. E., Tithe Farm, Wraysbury, Staines.
Williams, G. P., Scorrier, Cornwall.
Williams, H. C., The Wood, Hadnall, Shropshire.
Williams, J., 13, Chapel Street, London, W.C. 1.
Williams, Major G. T., Tredrea, Perranwell, Cornwall (L.M.).
Williams, Miss M. S., Agricultural Education Office, Newtown, Mont.
Williams, Mrs. B., 5, Lime Grove Avenue, Carmarthen.
Williams, Mrs. G. H., Kayte Farm, Cheltenham, Glos.
Williams, Mrs. John, Scorrier House, Scorrier, Cornwall.
Williams, R., Rectory Farm, Walgrave, Northampton.
Williams, T. D., 39, High Road, East Finchley, London, N.2.
Williamson, T. W., 82, High Street, Winchester.
Willing, T., Bulleigh Barton, Ipplepen, S. Devon.
Willis, G. H., Ivy Lodge, Birdlip, Glos.
Willows, H. V., 100, Kirby Road, North End, Portsmouth.
Wills, Capt. A. S., Thornby Hall, Northampton.
Wills, C. M., Sherfield Court, near Basingstoke.
Wills, Capt. D. M., Barley Wood, Wrington, Som.
Wills, G., Rydon, Ogwell, Newton Abbot.
Willsher, H. G., "Maraval," Wood End Green, Hayes End, Middlesex.
Wilmot, Reginald M., Hole Farm Cottage, Lye Green, Withyham, Sussex.
Wilson, A., Thornley Park House, Paisley.
Wilson, C., Riseholm, Lincoln.
Wilson, Mrs. C. E., Mace Farm, Cudham, Sevenoaks.
Wilson, Walter, Newby Brow, Kendal.
Wilson-Sears, C., Montague Chambers, Montague Close, London Bridge, S.E. 1.
Wiltshire Creameries, Ltd. (represented by F. Kemp Walton), Cocklebury Road, Chippenham, Wilts.
Witherden, A. G. C., Church House, Church Street, Yeovil.

Wolseley Sheep Shearing Machine Co., Ltd. (represented by G. Ward), Wolseley Works, Electric Avenue, Witton, Birmingham.
Women's Farm and Garden Association (represented by Miss A. Vanderpant), Courtauld House, Byng Place, Torrington Square, W.C. 1.
Wood, F. G.
Wood, F. Russell, Bendish House, Welwyn, Herts.
Wood, Miss H. S., Shire Hall, Nottingham.
Wood, Miss L., Lauristons, Alumhurst Road, Bournemouth.
Woodall, W., 3, South Wharf, Praed Street, Paddington, W. 2.
Woodiwiss, Sam, Sedgemere, Great Waltham, near Chelmsford, Essex.
Woodley, A. D., Ltd., Little John's Farm, Reading.
Wooldridge, Prof. G. H., Royal Veterinary College, Camden Town, N.W. 1.
Wooster, G., Pennbury Farm, Penn, Bucks.
Worsley, P.H., Farmington, Northleach, Glos.
Wrathall, William, The Farm, Keighley Road, Skipton.
Wrennall, J., Electric Poultry Appliance Works, Barton, near Preston.
Wright, E. E., The Mount, Wirswall, Whitchurch, Salop.
Wright, Norman C., The Hannah Dairy Research Institute, Kirkhill, Ayr.
Wright, Sir Robert P., The Heugh, North Berwick, East Lothian.
Wright, William, Royals Wood Farm, Aston, Nantwich.
Wyllie, Hugh, Minsted, Midhurst, Sussex.

YATES, MRS. C., The Venn, Bromyard, Herefordshire.
Yates, Major S. P., Broughton Grange, Banbury (L.M.).
Yorke, Mrs. B. V., Peter's Farm, near Chippenham, Wilts.
Young & Co., Ltd. (represented by J. W. Brown), Abbey Road, S.W. 19.
Youngs of Horley (represented by F. A. Young), Fayson House, Horley.
Yule, Miss G. M., Hanstead House, Bricket Wood, St. Albans.

ZEIN-EL-DINE, M., The University, Reading.

N.B.—Members having any alterations to make in the Names and Addresses, as published in this List, are requested to give notice of the same, in writing, to the Secretary.

ABBREVIATIONS—(H.L.M.), Honorary Life Member. (H.M.) Honorary Member. (L.M.) Life Member.

One end of the Shippon at Silcock's Thornton Hall Farm.

"The food with the farms behind it"

The milk produced here is up to Certified Standard. Silcock's "H.Y." Dairy Nuts are the result of years of experiment upon our own farms, followed by the exacting test of daily use upon the farms of tens of thousands of our customers. For health and high yields, combined with economy of feeding, they are still in a class of their own. Ask your local Silcock agent for a copy of our book "The Dairy Cow," which will tell you just how we combine management and feeding to obtain successful results in the herd.

SILCOCK'S **"H.Y." DAIRY NUTS**

R. SILCOCK & SONS, LTD. STANLEY HALL, UNION STREET, LIVERPOOL

AFFILIATED SOCIETIES.

Amalgamated Master Dairymen, Ltd. Secretary, Thomas J. Goodchild, 8, Southampton Street, London, W.C. 1.

Ayrshire Cattle Herd Book Society. Secretary, Hugh Bone, 58, Alloway Street, Ayr.

British Friesian Cattle Society. Secretary, George Hobson, Aldwych House, Aldwych, London, W.C. 2.

British Goat Society. Secretary, H. E. Jeffery, Roydon Road, Diss, Norfolk.

British Kerry Cattle Society. Secretary, M. R. Leather, 12, Hanover Square, London, W. 1.

Cambridgeshire and Isle of Ely Agricultural Society. Secretary, L. J. Chater, County Hall, Hobson Street, Cambridge.

City of Liverpool and District Cowkeepers' Association. Secretary, Stanley Foster, 77, Menlove Avenue, Mossley Hill, Liverpool.

Dairy Shorthorn (Coates's Herd Book) Association. Secretary, A. Furneaux, 107, Southampton Row, W.C. 1.

English Guernsey Cattle Society. Secretary, Robert F. Ling, 12, Hanover Square, London, W. 1.

National Association of Creamery Proprietors' and Wholesale Dairymen, Inc. Secretary, G. F. Gosney, Room 234, Shell Mex House, Victoria Embankment, London, W.C.2.

Poultry Club. Secretary, C. Grange, Chedburgh, Bury St. Edmunds.

Red Poll Cattle Society. Secretary, C. H. Clarke, 29, Warrington Road, Ipswich.

South Devon Herd Book Society. Secretary, S. A. Yeo, 3, West Street, Okehampton.

ASSOCIATED SOCIETY.

Scientific Poultry Breeders' Association. Secretary, T. Newman, Rudgwick, Horsham, Sussex.

The British Dairy Farmers' Association will not be responsible for the accuracy of the statements or conclusions contained in the several papers in this Journal, the authors themselves being solely responsible.

The Association does not accept responsibility for any statements made in the advertisements appearing in this Journal.

INDEX TO ADVERTISERS

The British Dairy Farmers' Association does not accept responsibility for any statement made in the advertisement columns of this Journal.

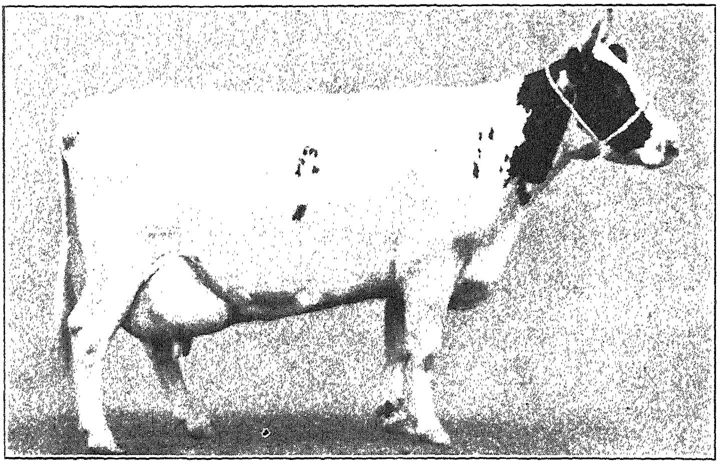
	PAGE
AYRSHIRE CATTLE HERD BOOK SOCIETY	422
BRITISH OIL & CAKE MILLS LTD.	4
BROOKS (MISTLEY) LTD.	3
CATALINE CO., LTD.	Outside Back Cover
CROWN CORK CO., LTD.	427
FORSTERS GLASS CO., LTD.	423
HOLLAND, W. L.	425
KING, G. W., LTD.	424
LLEWELLIN & SON	426
MAPPIN & WEBB LTD.	2
MONO SERVICE CONTAINERS LTD.	6
NORFOLK HOTEL	1
OLYMPIA OIL & CAKE CO., LTD.	Inside Front Cover
SCIENTIFIC POULTRY BREEDERS' ASSOCIATION	428
SILCOCK, R., & SONS	419
SMITH BROS. & CO., LTD.	425
WOMEN'S FARM AND GARDEN ASSOCIATION	425

LONDON DAIRY SHOW, 1935

AYRSHIRES SUPREME ONCE AGAIN

AYRSHIRE CATTLE WON

The BLEDISLOE TROPHY *for the Sixth Time*
The SUPREME INDIVIDUAL CHAMPIONSHIP TROPHY *for the Fourth Time*
The SPENCER CUP *for the Third Time*
The MOND PRIZE *for the Sixth Time*



Mr. David Smith's Ayrshire cow, "Thornhill Mermaid 2nd," which won the Supreme Individual Championship, the Spencer Cup and the Rowallan Cup.

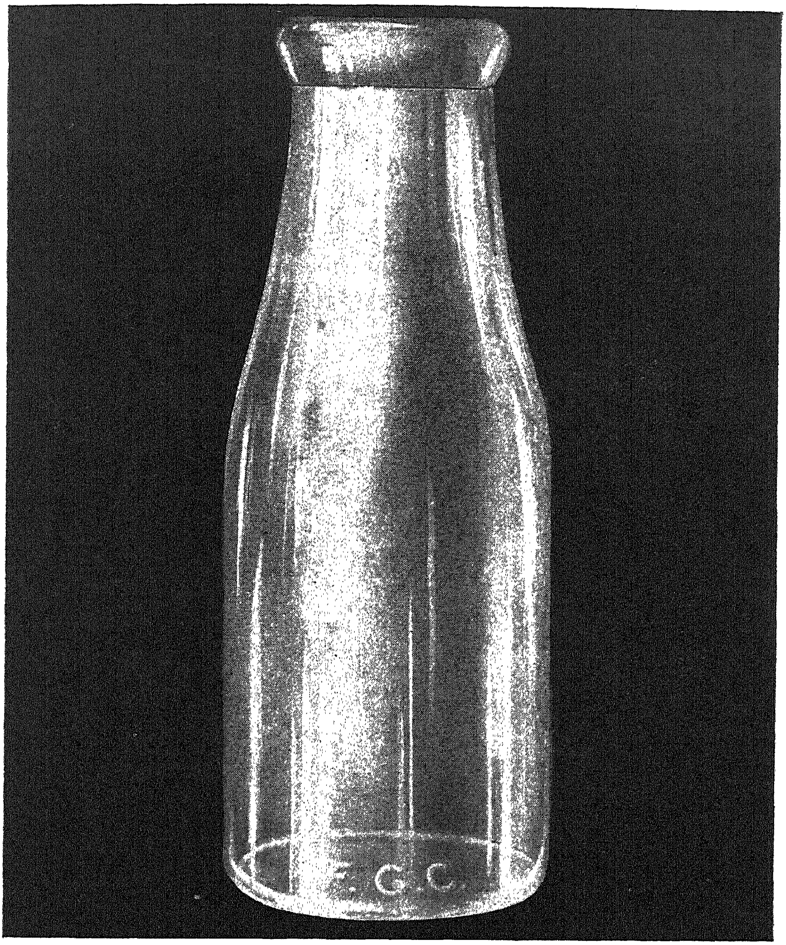
This cow gave 79.6 lbs. milk at 4.13 % fat in one day.
A four-year-old Ayrshire Cow gave 84.1 lb. milk at 3.33 fat in one day.
2 Ayrshire Heifers gave 63.3 lb. milk at 4.79 % fat in one day.
9 Ayrshire Cows averaged 68 lb. milk at 4.19 fat each day.
7 Ayrshire four-year-old Cows averaged 66.9 lb. milk at 3.91 % fat each day.
13 Ayrshire Heifers averaged 50.7 lb. milk at 3.92 % fat each day.

YOU BUY A COW!

But—you INVEST in an AYRSHIRE

THEY WON'T LET YOU DOWN

Free Illustrated Brochure and information from—HUGH BONE, Secretary,
AYRSHIRE CATTLE HERD BOOK SOCIETY, 58 Alloway Street, AYR.



FORSTRENGTH

FORSTERS

Bottles

LONDON—*St. Margaret's House,*
57/9 *Victoria Street,* *S.W.*1
Victoria 4438/9

GLASGOW—382 *Central Chambers.*
93, *Hope Street.* *Central* 2609

DUBLIN—8, *Commercial Buildings,*
Dame Street. *Dublin* 22459

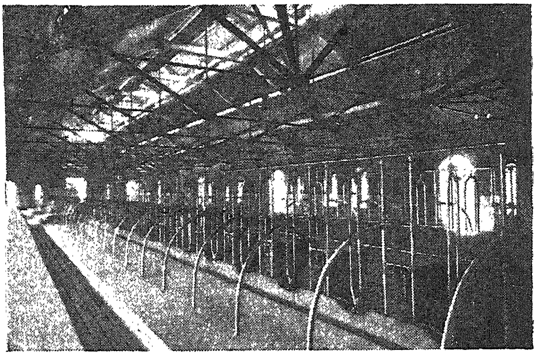
WRITE FOR FULL PARTICULARS AND PRICES TO

FORSTER'S GLASS CO., LTD., Atlas Glass Works, ST. HELENS, Lancs

Telephone 2256. *Telegrams : " Froking," St. Helens.*

BY APPOINTMENT

LOUDEN KING COW SHED EQUIPMENT



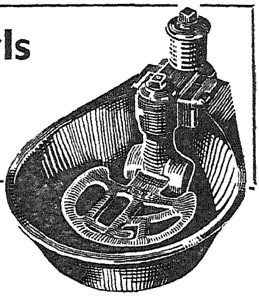
Years of experience have enabled us to produce Cow Barn Equipment that is the acme of perfection. Herds can be housed under the most hygienic conditions, and the ease of maintenance materially assists the reduction of milk production .costs.

Simple Partitions from 12/6 per cow.

Automatic Drinking Bowls

form an ideal and permanent watering system and greatly assist in obtaining the maximum milk yields.

More than 150,000 give daily satisfaction



Whatever your requirements, large or small our Advisory Department is always at your disposal for suggestive plans and layouts. Make use of it without obligation whatsoever. We shall be pleased to send you our informative illustrated Catalogue B.D. 36, on receipt of a post card.

GEO. W. KING LTD.

Hartford Works, Hitchin, Herts.

TELEGRAMS:
AGRIKINGER, HITCHIN

TELEPHONE:
HITCHIN 424 & 425

SEALCAP

The PERFECT SEAL & CAP
FOR THE DAIRY WORLD

(Passed by the Ministry of Health for **CERTIFIED** and all **GRADED MILK**)

RAPID
CAPPING
DEVICE
SUPPLIED
FREE.

WILL FIT
ANY TYPE
OF BOTTLE.

Write for samples *and prices to:—*

SMITH BROS. & CO., PATENT CRIMPED CAPSULES **Ltd.,**
110, Pratt Street, London, N.W.1.
TELEGRAMS: "SMIBROCO. NORWEST, LONDON." TELEPHONE: EUSTON 1144 & 1145

ADELPHI MASH MIXERS
and Vegetable Shredders

are a worth-while investment for any farmer or poultry farmer

Write for catalogue to

W. L. HOLLAND LTD - PRESTON

THE WOMEN'S FARM & GARDEN ASSOCIATION
(INCORPORATED) FOUNDED 1899

OBJECTS.—To unite all Professional Women workers in Agriculture, Horticulture and Allied Subjects, and those interested in such work for Women into a strong Central Association.

ADVISORY AND EMPLOYMENT DEPARTMENT
(LICENCED L.C.C.)

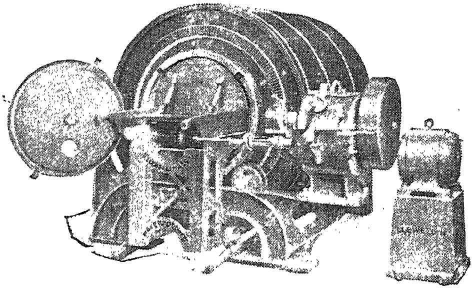
Club House for Members. Land Outfit Department.

All further particulars from THE SECRETARY, Courtauld House, Byng Place,
Torrington Square, London, W.C.1. *Telephone : Museum* 1281.

LLEWELLIN'S

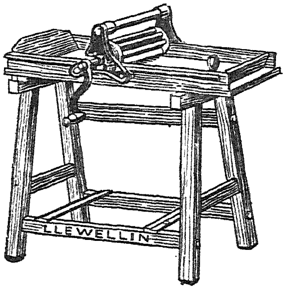
COMBINED CHURNS & BUTTER WORKERS
to churn from 35 gallons to 600 gallons

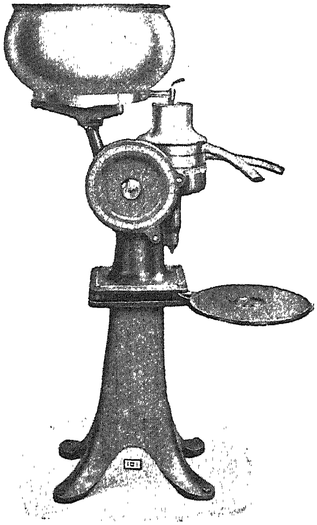
"VICTORY" CHURN as used for the Buttermaking Competitions at the DAIRY SHOW and many other agricultural shows. Won every highest award in the British Isles. Full range of sizes to churn from 6 to 100 lbs. of Butter.



MODEL J.L. Combined Churn and Buttermaker. Full range of sizes and types, including Internal roller type churns with one, two and three pairs of rollers. Belt driven and motorised models.

"ALEXANDRA" Butterworker as used for the Buttermaking competitions at the DAIRY SHOW and many other Shows.





NEW MONARCH Cream Separators with Rust-Proof Bowls, Ball Bearings and all up-to-date improvements.

Please write for fully illustrated catalogues giving particulars of capacities in which you are interested.

G. LLEWELLIN & SON, HAVERFORDWEST, WALES

Dairy Engineers and Churn Manufacturers for over 150 years

ESTABLISHED 1789

—the ECONOMICAL EFFICIENCY *of*

the NEW
Perfected Method
of MILK
SEALING

MILCRO is made of seamless enamelled metal, free from dirt harbouring joints and crevices. The entire pouring lip of the bottle is protected from both contamination and breakage.

MILCRO is economical because it is completely efficient and involves no wastage—because the cost of installation and maintenance is very low.

MILCRO is the latest and best SEAL for ALL grades of Milk.

Approved by the Health Authorities and is being used by many of the leading Dairy Establishments.

MILCRO is a C.C.C. Product and C.C.C. will be pleased to send you free samples.

The CROWN CORK CO., LTD.

APEXES WORKS, SOUTHALL, MIDDLESEX
Telephone: Southall 2241. *Telegrams: Apexes, Southall.*

London Office: 91, Regent Street, W.1. - *Telephone: Regent 2465 & 6*

POULTRY KEEPERS
who are members of S.P.B.A. – the largest POULTRY SOCIETY in the WORLD – are found in every part of ENGLAND.

MEMBERSHIP BRINGS FINANCIAL ADVANTAGE

"EGGS" the weekly paper for the enterprising Poultry keeper – must be read weekly.

DO THE TWO THINGS TO-DAY
JOIN S.P.B.A.
READ "EGGS."

IMP. AGRI. RES. INST.
17 APR. 1937
LIBRARY

JOURNAL
OF THE
BRITISH DAIRY FARMERS' ASSOCIATION.

VOL. XLIX.

London:
BRITISH DAIRY FARMERS' ASSOCIATION, 28, Russell Square, W.C.1.
Printed by W. E. BAXTER LTD., 34 and 35, High Street, Lewes.

1937.

PRICE: SIX SHILLINGS. (*Free to Members*).

To keep down Feeding Costs...

. . . eliminate uncertainty from your feeding. Feed O.C.O Balanced Rations; they are always dependable, and, being scientifically balanced and blended for their specific purpose, are most economical. O.C.O Balanced Rations not only eliminate waste in mixing and feeding, but ensure perfectly blended feeds at all times.

O.C.O BALANCED RATIONS

FOR CATTLE, SHEEP AND PIGS

Manufactured by **OLYMPIA OIL & CAKE CO. LTD.**
(*Cattle Foods Dept.*), Unilever House, Blackfriars, London, E.C.4
SUPPLIES AVAILABLE FROM SELBY, LONDON AND BRISTOL

OCO 115-19

To Breeders and Herdsmen!

PERFORMANCE IS USELESS unless you keep Records . . . . . all successful Breeders and Farmers do this.

The publications described below have a very large sale and we recommend them to you with every confidence.

THE LOOSE-LEAF PRIVATE
HERD REGISTER for Dairy CATTLE

Containing Sections for Recording particulars of Extended Pedigree, Date of Service, Produce, Milk Records, Prizes won, Space for Photograph, &c., for 50 Cows and 5 Bulls.

Printed on Good Azure Paper, 14 ins. by 17 ins.

Price 30/-
POST FREE IN GREAT BRITAIN

THE PRIVATE
HERD REGISTER for Dairy CATTLE

Containing Sections for Recording particulars of Extended Pedigree, Date of Service, Produce, Milk Records, Prizes Won, Space for Photograph, &c., for 99 Cows and 11 Bulls.

Printed on Good Paper, Strongly Bound in Cloth Cover, 13¼ ins. by 16½ ins.

Price 18/6
POST FREE IN GREAT BRITAIN

We would welcome suggestions from clients for improvements should these Registers fall short of their requirements.

PEDIGREE CERTIFICATES

In BOOKS of 30, in duplicate stiff binding with cloth back.

Price 2/6
POST FREE IN GREAT BRITAIN

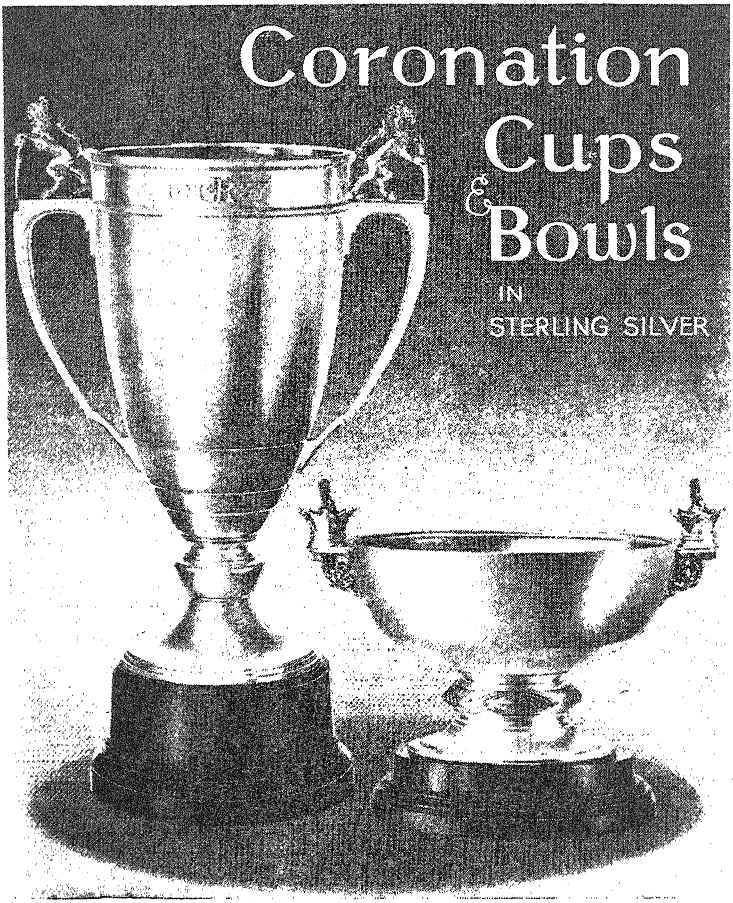
SPECIMEN SHEET OF ANY OF ABOVE SENT POST FREE ON APPLICATION TO:—

W. E. BAXTER LTD.

SPECIALISTS IN BREED SOCIETY PRINTING!!

34 & 35 HIGH STREET, LEWES, SUSSEX

TELEPHONES: LEWES 80 & 81   TELEGRAMS: BAXTER, LEWES 81



There will be special significance about every event for which a trophy is awarded in this Coronation Year. Committees are asking for special Designs for their Coronation awards; that is why we have designed a series of Coronation Year Trophies. They will worthily commemorate achievements of Coronation Year. A catalogue will be sent upon request.

MAPPIN & WEBB LTD.

THREE LONDON SHOWROOMS:

156-162 Oxford St., W.1 172 Regent St., W.1 2 Queen Victoria St., E.C.4

LONDON DAIRY SHOW, 1936

COWS FED ON

BROOKS CUBES

OBTAINED OVER

120 AWARDS

INCLUDING THE B.D.F.A.

Supreme Individual Championship

THE SPENCER CUP

THE THORNTON CUP
(FOR RED POLLS)

THE KERRY CUP

AND RESERVE

We are extremely gratified to state that this is the fourth time during the last 10 years that a cow fed on Brooks' Cubes has won the Supreme Individual Championship at the Dairy Show. The other occasions were :—

1926 1931 1933

BROOKS' HERD WON THE NORTHLANDS CUP

In the Essex County M.R. Society's Herd Competition, 1936.

PRODUCTION RATION - - - - G. B. CUBES

Full Particulars from the Sole Manufacturers :—

BROOKS (MISTLEY) LIMITED
MISTLEY : MANNINGTREE : ESSEX

RESULTS

OF THE 9th B.O. & C.M. NATIONAL MILK-YIELD COMPETITION

1st OCTOBER 1935 to 1st OCTOBER 1936

Classes 1 and 2. Yields calculated in herds of 32 cows or less on the best eight cows; herds over 32 cows on 25%.

CLASS 1 (Open to Friesians only).

		AVERAGE YIELD
1ST PRIZE £100	F. H. Cock, Prestbury Park Farm, Cheltenham, Glos	**2170 GALLONS**
2ND PRIZE £50	Dr. J. Witherow Pitt, Burscough Bridge, nr. Ormskirk, Lancs	**2165 GALLONS**
3RD PRIZE £35	M. S. Langton, Killis Farm, Kilburn, Derby	**1983 GALLONS**

CLASS 2 (Open to all breeds other than Friesians, Channel Island Breeds, Kerries and Dexters).

1ST PRIZE £100	W. S. Evans, The Old Hall, Denby, nr. Derby	**1814 GALLONS**
2ND PRIZE £50	A. Cochrane, Nether Craig, Kilmarnock, Ayrshire	**1801 GALLONS**
3RD PRIZE £35	Captain R. S. Hall, New Hall, Tendring, Clacton-on-Sea, Essex	**1691 GALLONS**

Class 3. Yields calculated in herds of 24 cows or less on the best six cows; herds over 24 cows on 25%.

CLASS 3 (Open to Channel Island Breeds, Kerries and Dexters only).

1ST PRIZE £50	W. J. Borlase, Stokes Farm, Wokingham, Berks	**1623 GALLONS**
2ND PRIZE £25	S. E. Howse & Sons (E. & H. Howse), Elms Farm, Botley, Oxford	**1516 GALLONS**
3RD PRIZE £15	S. S. Lockwood, Normanby Hill, Sinnington, York	**1439 GALLONS**

Ten prizes of £10 and twenty prizes of £5 for next highest yields (Classes 1 and 2); three prizes of £5 for next highest yields (Class 3); thirteen prizes, amounting to £100, for the highest percentage increases over last two years' yields; £60 for Scottish competitors; and £45 for new competitors.

THE ENTIRE HERDS HAVE BEEN FED ON

B.O. & C.M.

BALANCED DAIRY NUTS

B.O. & C.M. also includes the following brands: "ROBSON'S", "UNION", "S.B.S.", "J.R.", "FOSTER", "PEARSON", "PALATINE", "PHŒNIX", "PARRY MASON".

THE BRITISH OIL & CAKE MILLS LTD.

UNILEVER HOUSE, BLACKFRIARS, LONDON, E.C.4

BOC 496-23 BRANCHES IN ALL PARTS OF THE COUNTRY

JOURNAL

OF THE

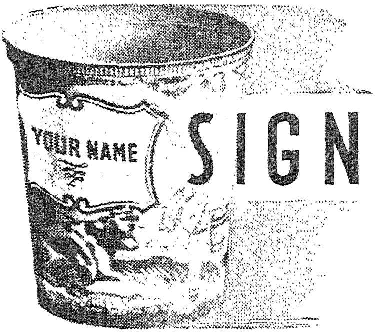
British Dairy Farmers' Association

VOL. XLIX.

1937

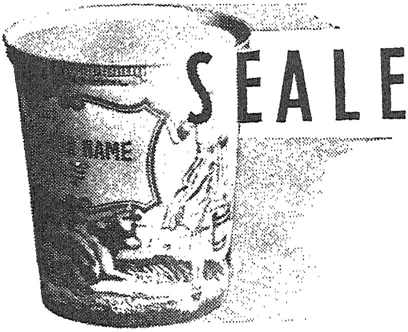
PRICE 6s. *(Free to Members)*

London
BRITISH DAIRY FARMERS' ASSOCIATION, 28, RUSSELL SQUARE, W.C.1.
W. E. BAXTER LTD., 34 AND 35, HIGH STREET, LEWES.



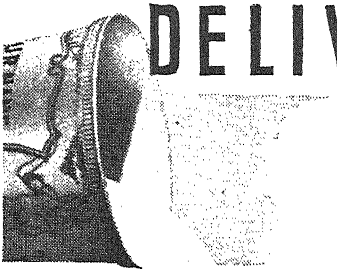
SIGNED

with an attractive and individual design, specially created for you by the Mono Designing Department. This designing service is free to all who use Mono Containers.



SEALED

hygienically with well-fitting disc-lid, all Mono-packed products are immune from germs and protected from dust, dirt and all forms of contamination.



DELIVERED

to thousands of homes and assured of a warm welcome not only for their perfect hygiene, but because they are practical in use, eliminating mess and waste. The Mono Container is the cheapest and most efficient method of packing, easy to handle, economical in use and 100% secure. Write now for full particulars and a quotation to Mono Containers Limited, Park Royal, London, N.W.10. (Tel.: Willesden 0900, 5 lines).

MONO
containers

CONTENTS

VOLUME XLIX.

1937.

ORIGINAL ARTICLES AND REPORTS

PAGE.

GRASSLAND DAIRYING IN THE BLACKMORE VALE 9

By EDGAR THOMAS, B.Litt., B.Sc., and F. H. VILLIERS, M.Sc., B.Sc. (Agric.), N.D.A.

DAIRYING IN DERBYSHIRE, LEICESTERSHIRE AND NOTTINGHAMSHIRE 26

By H. G. ROBINSON, M.Sc.

DAIRY CHANGES IN VILLAGE LIFE 38

By ELDRED WALKER.

APPLIED BACTERIOLOGY IN DAIRYING 49

By Dr. A. T. R. MATTICK.

SOME REMARKS ON ICE CREAM 59

By E. E. F. COLAM.

CONFERENCE AND TOUR IN BELGIUM, 1936 72

By Captain G. C. SANKEY.

RECORDS OF TYPE, SIZE AND PRODUCTION OF REPRESENTATIVE ANIMALS AT THE LONDON DAIRY SHOW, 1936 104

By Sir J. Q. LAMB, J.P., M.P., S. BARTLETT, M.C., B.Sc., and W. F. JESSOP.

ANNUAL REPORT OF THE CONSULTING CHEMIST 126

By T. J. DRAKELEY, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.

THE DAIRY SHOW OF 1936

PAGE.
GENERAL REPORT. By SIDNEY EDWARDS 127
NEW AND IMPROVED INVENTIONS. By J. G. STAPLETON, JAMES MACKINTOSH and C. N. GOODE 138
MILKING TRIALS OF COWS AND HEIFERS. By E. W. S. PRESS, B.Sc. (LOND.), A.I.C., F.C.S. 148
ROBERT MOND CHALLENGE SHIELD AWARDS. By JAMES MACKINTOSH, O.B.E., N.D.A., N.D.D. 240
MILKING TRIALS FOR GOATS. By T. W. PALMER 245
BUTTER TESTS. By R. H. EVANS, B.Sc. 254
POULTRY SECTION. By W. J. GOLDING 288
PIGEON SECTION. By W. S. BROCKLEHURST, J.P. 295
AWARDS OF PRIZES 306
LIST OF JUDGES 333

OFFICIAL

OBJECTS OF THE ASSOCIATION AND ADVANTAGES OF MEMBERSHIP 336
THE BRITISH DAIRY INSTITUTE 346
THE 61ST HALF-YEARLY REPORT OF THE COUNCIL 348
THE 61ST ANNUAL REPORT OF THE COUNCIL AND FINANCIAL STATEMENTS 352
THE MEDAL SCHEME 359
THE CONDITIONS RELATING TO PRIZE ESSAY 363
THE PRODUCTION OF CLEAN MILK 364
SYLLABUS OF EXAMINATIONS FOR NATIONAL DAIRY DIPLOMA AND CERTIFICATES FOR FACTORY MANAGERS, CHEESE-MAKING AND BUTTERMAKING FOR 1936... 365
RESULTS OF EXAMINATIONS IN 1936 382
EXAMINATION PAPERS FOR 1936 386
MEMBERS OF COUNCIL AND COMMITTEES 405
LIST OF MEMBERS AND AFFILIATED SOCIETIES 408

INDEX TO ADVERTISERS 443

GRASSLAND ~~DAIRYING~~ IN THE BLACKMORE VALE.

By
Edgar Thomas, B.Litt., B.Sc.
and
F. H. Villiers, M.Sc., B.Sc. (Agric.), N.D.A.
Agricultural Economics Department, Reading University.

Descriptive.

The Blackmore Vale district of north-west Dorset forms part of that important section of the west-country milk-shed which converges on the three counties of Dorset, Somerset and Wiltshire. The Vale itself has long been famous for its grassland. Writing in 1815, Stephenson has much to say about the " rich feeding land of the Vale of Blackmore " where " some of the most fertile meadows in the Kingdom " are to be found. According to Stephenson about one-third of this fertile grass-land was used for feeding " whether sheep and beasts . . . to go when fat to Smithfield Market, and are said to be the finest-grained meat in the Kingdom."* The rich pastures still remain a feature of the Vale, but there has been a big shift in the main objective of the farming. The grazier has given way to the dairy farmer, and, again, within the dairying industry butter-making, cheese-making, and pig-feeding have been supplanted by milk-selling. To-day the big majority of the farms can be described as grassland dairy holdings dependent in the main on the sale of liquid milk, but with pigs and poultry as increasingly important sidelines. Small and medium sized farms of under 150 acres predominate, and although a number of large farmers may be found, it is the family farm which is typical of what Thomas Hardy described as the " vale of little dairies."

The object of this article is two-fold : firstly, to present some evidence about the financial results of grassland dairying in the vale between Lady Day 1931 and Lady Day 1935, an extraordinarily interesting period of transition for dairy farmers in this country ; secondly, to illustrate some of the problems of milk production in a predominantly grassland district with special reference to the potentialities of the grassland itself as the basis for producing the milk supply.

**General View of the Agriculture of the County of Dorset* by William Stephenson, 1815.

All the figures and tables given are based on carefully kept records from ten farmers who have co-operated with the Economics Department of Reading University for the whole period of four years. The records of other farmers in the district, which are also available in the Department, have not been used here because they do not extend over the whole four years period.* In spite of the small number of farms, the sample itself is thoroughly representative of the dairy farming of the area.

The total area of the ten farms was 1,139 acres, the largest farm being 189 acres and the smallest farm 45 acres. Over 90 per cent. of the total area was permanent grass. Some arable crops were grown on four farms, but in all cases the arable land was of secondary consideration, being made to dovetail into the main dairying enterprise, both as regards labour requirements and as a source of succulent food and of litter.

All ten farms were essentially family holdings. Two of the farmers employed no regular hired workers, and the other eight farmers employed only thirteen regular hired men between them. Most of the farms employed some additional casual labour for hay-making, but the total quantity so employed was small.

The average capital investment over the four years was £980 per farm or roughly £10 per acre. This capital was distributed as follows :—

Dairy herd	60.1%
Other livestock	12.8%
Equipment	17.2%
Stores	9.9%
	100.0%

These percentage figures help to illustrate the importance of the dairy herds in the economy of these farms, although it should be stated that, during the four years, there was a tendency for a relative increase in the amount of capital invested in other livestock.

EXPENSES AND RECEIPTS.

Perhaps no better indication of the financial results of farming can be given than a plain statement of expenditure and income. Such a statement for the ten farms is shown in Table I., where the average expenses and receipts per acre are set out for each of the four years.

---

*A fuller account of the financial results on all the co-operating farms is given in *Financial Accounts Studies* No. I., III., V. and VII, issued by the Agricultural Economics Department of Reading University.

TABLE I.

AVERAGE EXPENSES AND RECEIPTS PER ACRE ON 10 BLACKMORE VALE DAIRY FARMS, 1931-35.

	1931-32	1932-33	1933-34	1934-35	Average 1931-35.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	%
EXPENSES.						
Family labour ...	1 10 1	1 8 5	1 11 0	1 10 11	1 10 1	17.5
Hired labour ...	1 3 9	1 4 0	1 2 7	1 4 3	1 3 8	14.1
Rent	1 18 8	1 17 1	1 16 11	1 16 6	1 17 3	21.6
Foodstuffs	1 13 1	1 15 2	1 10 3	2 2 9	1 17 7	22.2
Dairy livestock ...	1 0 7	0 14 5	0 13 5	0 11 9	0 15 1	8.8
Other livestock ...	0 10 3	0 8 4	0 12 7	1 2 2	0 13 4	7.6
Other expenses ...	0 16 0	0 13 0	0 13 7	0 13 6	0 14 0	8.2
	8 12 5	8 0 5	8 9 4	9 1 10	8 11 0	100.0
RECEIPTS.						
Milk (and cheese) ...	4 17 7	5 3 9	5 3 3	5 17 10	5 5 7	56.5
Cows, yearlings and bulls	0 10 1	0 13 7	0 12 1	0 14 7	0 12 7	6.9
Calves	0 15 3	0 13 3	0 14 2	0 12 10	0 13 10	7.4
Pigs	0 15 1	0 13 1	1 4 1	1 16 1	1 2 1	11.7
Poultry and eggs ...	0 14 6	0 15 9	0 16 7	0 17 10	0 16 2	8.5
Other receipts ...	0 12 8	0 15 5	0 19 2	0 19 4	0 16 8	9.0
	8 5 2	8 14 10	9 9 4	10 18 6	9 6 11	100.0

Apart from family labour, which in no case meant a direct cash outlay, the average expenditure over the four years was £7 0s. 11d. per acre. Family labour, which has been charged at the appropriate current rate of wages, brings this total average figure up to £8 11s. 0d. per acre. It will be noticed that the total outlay increased by just over £1 per acre (or 12.5 per cent.) between 1932-33 and 1934-35. This increase is almost entirely accounted for by the two items of " Foodstuffs " and " Other livestock " ; and these two items in turn were affected by the tendency to develop pigs and poultry in the later years. The three most important items of expenditure on all farms were labour, purchased foods, and rent, which together accounted for 75.4 per cent. of the total outgoings. Labour, both family and hired, remained practically constant throughout the four years—a significant fact in view of the increase in output which also occurred. The increase in the purchase of foodstuffs has been mentioned above. As regards rent, four farmers owned their farms and six were tenants ; the owner-occupiers have been charged the net " Schedule A " figure, whilst four of the six tenants received reductions of 10 per cent in rent after 1931-32.

The figures for receipts include all monies received by the farmer, together with an addition for the value of farm products consumed in the farm house. The value of farm produce consumed by the farm families was roughly £15 per family per annum, but this fell by about £1 per family between the first and last years of the period. This fall was due to the fact that in the first year three of the farmers made their own butter and cheese and two cured their own pig-meat, but in the last year no pigs were killed for home-consumption, and only one farmer made his own butter and cheese. At present there is a consumption of roughly £10 worth of milk and £4 worth of poultry and eggs per household per annum. In addition all the farmers have gardens and grow the bulk of their own potatoes and vegetables, while one farmer also keeps bees.

The average total receipts per acre over the four years was £9 6s. 11d., but this increased by as much as £2 13s. 4d. per acre (or 32 per cent) between the first year and the last year of the period. This improvement is to be explained primarily by two factors, viz., higher *returns* for milk and milk products, and higher *production* of pigs and poultry. The first of these two factors (*i.e.*, milk returns) will be discussed later. In the case of pigs the receipts figures give an inadequate picture of the expansion that occurred, for prices showed a downward tendency over the period. The total number of pigs sold by these ten farmers increased steadily from 316 pigs in 1931-32 to 630 pigs in 1934-35. Moreover, there was also a tendency, especially in the last two years of the period to increase the production of mature pigs, *i.e.*, baconers rather than slips and stores. Similarly with poultry and eggs, the downward trend of prices tends to mask the real upward trend of production during the four years. In fact the total number of laying birds kept on these holdings increased from 1,272 in 1931-32 to 1,706 in 1934-35 and the number of eggs sold from eleven thousand dozens to fifteen thousand dozens in the same time.

These increases in the receipts from pigs and poultry show that on these farms there has been a distinct tendency to diversify the farming. Whereas in the county as a whole the tendency has been to concentrate more and more upon milk production, these farmers are tending to change from purely dairy farming to more or less mixed grassland farming. Nevertheless, milk and milk products still account for more than half the total receipts. When receipts from cows, yearlings, bulls, and calves are also taken into account the dairying enterprise was the source of 70.8 per cent. of the total receipts. All ten farmers can, therefore, still rightly be described as grassland milk producers.

PROFITS AND LOSSES.

In Table II. the average financial results of farming in each of the four years are shown, firstly as " farm income " and, secondly, as " family income." Farm income represents the difference between receipts plus closing valuation and payments plus opening valuation. Family income is arrived at in a similar way except that the charge for family labour has not been included as a payment. In both farm income and family income the farmers have had the use of the farm-house free of rent, but no charge has been made for interest on capital or remuneration of management.

TABLE II.

FARM INCOME AND FAMILY INCOME ON 10 BLACKMORE VALE DAIRY FARMS, 1931-35.

	1931-32	1932-33	1933-34	1934-35
	£	£	£	£
Farm income ...	(—) 87	12	22	154
Family income ...	63	154	183	317

The farm income for 1931-32 is shown as a net deficit of £87 per farm, this being turned into a small surplus of £12 per farm in 1932-33. There was a further slight improvement in 1933-34 and a very substantial improvement in 1934-35 when an average farm income of £154 was realised. This improvement in the last year was mainly due to the higher returns obtained for milk and cheese, coupled with the increase in the receipts from the subsidiary enterprises of pigs and poultry.

Considering now the family income. Even in 1931-32 this was a surplus figure, and by 1934-35 it was over £300 per family. This striking contrast in the financial results as shown by the farm income and by the family income explains why it is that the small family farmer is able to carry on even though when judged by rigid financial standards he may be shown to be working at a loss.

THE DAIRY HERDS AND THEIR MANAGEMENT.

All the ten herds were composed of typical Shorthorn cows and Shorthorn crosses. No pedigree cows were kept. The highest average value per cow per farm over the four years was only £24 10s. 0d., and the lowest was £18 5s. 0d. Three of the farmers kept pedigree bulls, but during the four years little money appears to have been available for spending on high priced animals, since the average value of all bulls bought was only £16 14s. 0d., the most expensive animal bought costing £22 5s. 0d. in 1932.

The average number of cows on all ten farms over the period was 264, which represents a concentration of roughly 25 cows per hundred acres, a fairly heavy concentration for a grassland district. The largest herd averaged 45 cows and the smallest 8 cows. There was a steady increase in the number of cows kept during the period, equivalent roughly to an increase of 1.4 cows per herd. This increase was common to all ten herds, and may be considered as fairly typical of what has happened in the district. This increase in the size of herd seems to have occurred at the expense of the young stock kept, for on these ten farms a net increase of 14 cows was accompanied by a net decrease of 19 in the total number of young cattle. This change has undoubtedly been accelerated partly by the greater emphasis on liquid-milk selling reducing the quantity of milk available for feeding to young stock, and partly by the drop in the prices of dairy cattle which tended to make buying replacements relatively more attractive than rearing.

All three systems of herd replacement—buying-in, rearing, and a combination of the two—are practised in the district. Of these ten farmers, two bought all their replacements, two reared all their heifers and six combined rearing and buying-in. During the four years, a total of 253 animals were transferred into the ten herds, this representing 22.8 per cent. of the total number of cows. The fact that 75 per cent. of the transfers-in were heifers shows the desire of these farmers to maintain relatively young cows in their herds. Of the 253 transfers-in, 151 (40.3 per cent.) were purchased—64 cows at an average value of £19 and 87 heifers at an average value of £22. Practically all the home-reared heifers were transferred into the herd at 2½ years old. Heifer calves retained for the herd suckle the cows for from 8 to 10 weeks and are given but little artificial feeding. The fairly heavy stocking with dairy cows together with the low lying nature of much of the land necessitates the agisting of the young stock away from the farm on the commons and higher land for a considerable part of the year.

The total number of cows transferred out of the ten herds over the four years was 239, made up of 216 sales and 23 deaths. The number of transfers-out represented 21.6 per cent. of the total numbers in the herds. This means that almost a quarter of the cows had to be replaced annually so that the average useful life of cows in the herds was only just over four years. Moreover, each cow sold represented a loss of about £10 to the farmer, the average price obtained for the 239 cows sold being only £11 as compared with an average figure of £21 per head for cows in the herd valuation. It is clear, therefore, that even on these farms where the cows are kept under fairly natural conditions and are not unduly pushed for high yields, the problem of herd maintenance is still a serious one.

The reasons for the disposal of the 216 cows sold during the four years were as follows ;

159 Barreners
13 Wasters
11 Aged
11 Unprofitable
10 Aborted
12 Unknown.

It is clear that sterility was by far the most common cause for the discarding of cows, accounting as it did for 74 per cent. of the total sales. It is probable that contagious abortion was largely responsible for this, for abortion is prevalent in the district. The 13 cows described as "Wasters" were probably affected with either tuberculosis or Johne's disease. For this the faulty water supply must be held responsible, since on several of the farms the only available water in most of the fields came from unsavoury looking ponds. Only 11 cows were sold because of old age, further evidence for the small proportion of cows having a really long productive life. The 11 cows described as unprofitable consisted of poor yielders and other unpromising animals which the farmers did not consider worth keeping. Ten cows were sold after they had aborted by farmers making an effort to get rid of the disease. The reasons for disposing of the remaining 12 cows are unknown, but probably some of them were surplus cows and some were sold to provide ready cash.

Deaths numbered only 23 in four years accounting for 10 per cent. of the total number of transfers-out. The causes of death were extremely varied and were as follows: digestive troubles (5), pneumonia (4), tuberculosis (2), old age (2), Johne's disease (2), liver fluke (2), accidents (2), garget (1), ruptured liver (1), and unknown (2).

Mortality among young stock was not heavy. The number of deaths of calves was 43 or about 5 per cent. of the live births. The chief cause of death was scours, 29 calves having died from this trouble. Though the deaths amongst calves born alive were not numerous, the number of premature births was heavy, a total of 83 cows having slipped their calves over the four years. Only three herds remained free from abortion throughout the period. On each of the other seven farms two or three abortions occurred each year, 9 per cent. of the calvings on these farms being premature. It is impossible to estimate the loss to the farmers caused by this trouble, for besides the immediate loss of the calves and the diminution of milk yields, the loss caused by subsequent sterility is also heavy as the figures given earlier show.

THE MILK OUTPUT AND ITS DISPOSAL.

The total quantity of milk produced on all ten farms in each of the four years was as follows :—

1931-32	160,128 gallons
1932-33	161,040 ,,
1933-34	170,050 ,,
1934-35	172,274 ,,
	663,492 ,,

These 663,492 gallons include all milk sold, manufactured on the farm, used by the family, and fed to livestock. It is equivalent to an output of roughly 600 gallons of milk per cow per annum.

During the four years the total milk production of these ten farms increased by 12,146 gallons or 8 per cent. This increased output was brought about partly by a slight increase in the milk yield per cow, and partly by an increase in the number of cows kept. The milk yield per cow increased by about 15 gallons during the period from 598 gallons in 1931-32 to 613 gallons in 1934-35 ; this would be sufficient to account for one third of the extra milk produced. The addition of 14 to the total number of cows kept accounted for the balance of the increase in total production.

Although summer production on grass is still the basis of the dairying of the district, it is significant to note that the increase in total production referred to above appears to have been almost entirely in the winter months from October to March, as the following figures giving the percentage of milk produced in winter show :—

1931-32	37.1%
1932-33	38.2%
1933-34	40.0%
1934-35	42.6%

It is possible, however, that these percentages may have been affected somewhat by the dry summers of 1934 and 1935. On the other hand the fact that there was an increase in the proportion of calvings in the last two quarters of the year (from 31.5 per cent. in 1931-32 to 36.5 per cent. in 1934-35) appears to indicate that there was a conscious effort to increase winter production on these farms.

In contrast to the time when the bulk of the milk in this area was manufactured into butter and cheese on the farm almost all of it is now sold wholesale. In 1931-32 three of these ten farmers still made cheese in summer, but by 1934-35 only one cheese-maker remained. Over the four years the milk was disposed of as follows :

Sold wholesale	87.1%
Sold retail	0.7%
Used in farm house	1.0%
Made into cheese	4.4%
Fed to livestock	6.8%
	100.0%

It is clear, therefore, that the returns from milk production on these farms is determined almost entirely by the price obtained for wholesale milk at the farm, and this, in turn, is the most important single factor determining the total receipts of these ten farmers. The following figures show the average price obtained each year for liquid milk at the farm after all marketing and other charges had been deducted :—

1931-32	8.39d. per gallon
1932-33	9.05d. ,, ,,
1933-34	8.91d. ,, ,,
1934-35	9.47d. ,, ,,

THE GRASSLAND AND ITS MANAGEMENT.

Like most farms in the district the fields on all ten farms were small, the average size being just under 9 acres. The district is fairly well wooded and there is a considerable amount of timber in the hedges which are themselves fairly large. These small sheltered fields give useful natural protection against extremes of weather conditions and afford opportunity for controlling the movements of livestock. Larger fields would probably be better for the expeditious use of machinery at haymaking, but with the relatively small labour force and limited equipment, to say nothing of the uncertain weather conditions, this is not a serious drawback.

The heavy nature of most of the land, coupled with the somewhat impervious subsoil renders the natural drainage rather difficult. Parts of four farms were liable to flooding and most of the other farms had large wet patches covered with rushes and inferior herbage. On all farms drains of some sort are in existence, but invariably they were laid many years ago and are either too deep to be of much value or have become silted up and unoperative. On one farm mole drainage has been tried with marked success, and it is surprising that this method has not been adopted more generally in the district for it appears to be eminently suitable for it. The ditches on most of the farms are kept in reasonably good order, but do little to overcome the defects of the main drainage system.

The total area of grassland on the ten farms in 1934-35 was 1,027 acres, of which 458½ acres (45 per cent.) was cut for hay and 568½ acres (55 per cent.) was grazed. Four farmers always mowed the same fields every year, three always cut some fields and three made an effort to alternate the grazing and mowing ground each year as much as possible. Policy in this respect was dictated to some extent by the contour of the fields, the available water supply and, in one case, by the farmer's tenancy agreement. As a general rule the land is definitely divided into grazing ground and hay or meadow land.

In all cases the meadows are shut off fairy early. All farmers aim to get the stock off the mowing land well before Christmas, as they like to start haymaking in the second week in June. Haymaking generally lasts about a month. Considering the fairly good average quality of the land, yields of hay are on the whole not too satisfactory. No very accurate figures are available but the farmers' own estimates (usually fairly liberal in such matters) for 1935 were as follows: six farmers estimated their yields at 20 cwts. per acre, two at 25 cwts. per acre, one at 30 cwts. per acre, and one at 35 cwts. per acre. When it is realised what an important part hay plays in the winter feeding of the dairy herd it is surprising to find these farmers content with such relatively modest yields.

In 1934-35 the average length of the grazing period was seven months—May to November inclusive. Most of the livestock was at grass day and night during this period though varying amounts of roots and hay were also fed both in May and in November. Full winter feeding did not begin until the end of November and in many cases some of the livestock was turned out in April. In most cases the dry stock remained out day and night all the year round. The dairy cows, however, were housed for the five winter months mainly because of the very wet condition of the land which quickly "poached" when trodden. Even though all farms had some dry fields, those adjacent to the farmstead could not stand the passage of the cows over them four times a day to and fro for milking during the winter months.

Most farmers make an effort to harrow as much as possible of the grassland each year though as long as they get the hay land done they do not trouble unduly about the pasture, but cover as much of it as they conveniently can. In most cases the old link chain pattern harrow is used, only two farmers having the modern penetrating tyned type. The main object of the harrowing appears to be to spread dung and droppings and to smooth out small surface irregularities to facilitate later haymaking operations, rather than to benefit the grassland itself. A fair amount of rolling is done, but much of the land being on the wet side has to be treated carefully in this respect, and most of the farmers prefer to unstock the land early in order to avoid all danger of " treading " rather than roll later. On the whole it would be correct to state that on most of these farms grassland cultivations are regarded merely as routine measures taken to prevent the land from deteriorating rather than as a positive attempt to improve yields of both grass and hay.

As a general rule most of the farm-yard manure is applied to the meadow land. On farms where the same fields are permanently kept for hay little dung is ever put on the grazing land, but, in others, both meadows and pastures receive a share or the hay fields are changed each year so that all the land receives a dressing of dung periodically. Where dung is being given year after year to the same hay fields they are showing signs of " overdunging " and the other portions of the farm show signs of the lack of dung.

Very little artificial manures were purchased on these ten farms during the four years. The average expenditure for the whole period was only 6.58 pence per acre per annum, and only 2.62 pence of this was in respect of the grassland. Six of the farmers used no artificials at all for their grassland during the whole period and in only three cases was grassland manuring given any serious consideration. Basic slag was the chief artificial manure purchased, and approximately 14 tons were used on the ten farms during the four years. Other manures used were: sulphate of ammonia (36 cwts.), compound manures (10 cwts.), potash salts (5 cwts.) and nitro-chalk (3 cwts.). None of the farmers had ever applied any lime, though two of them admitted that their land needed it. It is clear from these facts that manuring is not seriously considered on these farms, and the general attitude appears to be that the application of artificial manure to grassland is a " luxury " which can very well be dispensed with in hard times.

There is reason to fear that the majority of the farmers of the area have still to realise the need to cultivate grass as a serious farm crop. The mature cattle and sheep that were fattened on these pastures in the past took little from the soil, but under present conditions where large quantities of milk are sold off the pastures annually, the position is entirely changed. The maintenance of the fertility of their pastures—their most important asset—should become the farmers' main objective.

FEEDING FOR MILK PRODUCTION.

The principal system of feeding throughout the area is naturally centred on summer grazing. On these ten farms roughly one cow is carried for every four acres of grassland, though this varies appreciably from farm to farm. In a normal season little supplementary food is found to be necessary, except for high yielding cows, until the end of October. Gradually increasing quantities of hay are fed during November, and full winter feeding is begun in December and continued almost to the end of April. Conditions vary, of course, from farm to farm and from year to year. For example in 1934-35 (a year with a particularly dry summer and a mild and open winter) three of the ten farmers did not start feeding hay until December. Seven of the ten farmers grow small amounts of roots which are used to supplement the hay in forming the maintenance ration of the cows in winter, but the winter feeding is based chiefly on purchased cakes with a generous supply of hay.

Hay is fed out of doors so long as this is possible, the cows being housed at night only until the condition of the land makes their passage to and fro impossible, when they are housed altogether and the hay fed indoors. There is no strict rationing of the hay which is seldom trussed before feeding, the only measure being the "forkful." The quantity fed is governed almost entirely by the quantity available and by the condition of the cows. The total quantity fed on all ten farms in 1934-35 was approximately 410 tons, which is equivalent to the generous ration of 31 cwts. per cow per annum. It would appear, therefore, that hay forms an appreciable proportion of the production ration as well as the maintenance ration on these farms. Moreover, practically all the hay was meadow hay. This use of meadow hay for production purposes is an interesting feature of the dairy herd management of the district, and may partly account for the comparatively lower costs of milk production which characterises Dorset as a whole and the Blackmore Vale in particular.

On these ten farms the feeding of concentrates, like the feeding of hay, is not strictly rationed but fed roughly in proportion to the milk given. The farms are small and the farmer, in most cases, is himself the feeder so that the amount of concentrates fed should be fairly reasonably adjusted to the performance and condition of the cows. Scientific standards are not in favour and most of the farmers are ready to admit that their rationing is at best only a "rough guess." The term "condition" may mean very different things to different farmers and their "guesses" exhibit a very wide range of feeding. Thus, in 1934-35 the average quantity of concentrates fed on these ten farms was 9.36 cwts. per cow or 1.70 lbs. per gallon; but this ranged from 6.22 cwts. per cow and 1.15 lbs. per gallon on one farm to 15.31 cwts. per cow and 2.42 lbs. per gallon on another! There can be little doubt but that the adoption of some form of scientific rationing would exert a salutary influence on the financial results of milk production on most of these farms.

Practically all the concentrates are given to the cows in milk, very little " steaming-up " being practised. In a few cases small quantities of cake may be given for a fortnight or so before calving, but if the animals are in fair condition there is no extra feeding. No serious effort is made to create a real store of nutrients in the cow's body with a view to increasing future milk production.

The total quantity of purchased concentrates used on the ten farms in 1934-35 was 123 tons 11 cwts., the relative amounts of the fifteen different foods making up this total are shown in Table III. :

TABLE III.

QUANTITIES OF PURCHASED FOODS FED TO 10 BLACKMORE VALE DAIRY HERDS 1934-35.

Type of Food.	Quantity fed		No. of farms using food.
	(cwts.)	%	
Dairy Cake	1179	47.7	9
Cotton Cake	245	9.9	3
Flaked Maize...	217	8.8	4
Dec. Ground Nut Cake	209	8.5	3
Grass Nuts	168	6.8	3
Rice Meal	137	5.5	2
Beet Pulp	130	5.3	2
Crushed Wheat	58	7.5	1
Bran	42		1
Linseed Cake	38		2
Dec. Cotton Cake	25		3
Palm Kernel Cake	12		1
Oats	6		1
Fattening Nuts	3		1
Barley Meal	2		1
TOTAL	2471	100.0	—

Proprietary dairy cake was by far the most important concentrated food accounting for 47.7. per cent. of the gross weight of foods fed. Only one farmer dispensed entirely with proprietary cake while one other relied almost entirely on his own mixture. The popularity of compound cakes is largely due to the small size of the farms, and the absence of suitable facilities for mixing meals on the premises or for storing big lots of the different constituents. Six of the farmers bought all their foods locally in small lots and had them delivered by the vendor weekly or fortnightly as required. The other four farmers bought in bigger lots, of 5 or 6 tons at a time, from local dealers or from larger firms at a distance according to which offered the better terms. Most of the dealers undoubtedly push the trade in compound cakes at the expense of the simple food, and some of the farmers had had to give up mixing their own food because they experienced considerable difficulty in obtaining the necessary single ingredients for mixing. With the use of dairy cakes in winter and grass nuts in summer the rations are bound to be fairly well balanced, and in most cases the supplementary mixtures conformed fairly well to scientific standards though this was not so in all cases, flaked maize being largely used to "dilute" the proprietary cakes.

Apart from proprietary cakes, the only other foods fed in any quantity were: rice meal, decorticated ground nut cake, flaked maize, cotton cake and grass nuts. The first three were usually fed as a mixture supplementary to the compound cake, while the latter were fed chiefly to cows on grass in the summer. Only the two farmers who mixed their own foods purchased any minerals, but as minerals are included in the compound cakes and the milk yields are not unduly high there is probably no very serious deficiency in this respect.

On these ten farms in 1934-35 the average costs of all foods used in producing the milk supply amounted to the equivalent of £11 2s. 8d. per cow or 4.33d. per gallon of milk produced. Feeding costs accounted for well over a half of the total costs of milk production on these farms. But, even on a small group of only ten farms there was a very wide range in the costs of feeding. The highest food bill per farm was one of £15 6s. 1d. per cow or 6.61d. per gallon, and the lowest was one of only £9 1s. 9d. per cow and 3.35d. per gallon. This represents a variation of practically 100 per cent. both as regards food costs per cow and food costs per gallon.

GRASS AS THE BASIS OF MILK PRODUCTION.

The foods which the farmer uses in producing his milk can be grouped conveniently into three groups: purchased foods, home-grown foods other than grass, and grazing. In Table IV. a distribution on this basis of the foods bill on these ten farms for 1934-35 is shown.

TABLE IV.

FEEDING COSTS ON 10 BLACKMORE VALE DAIRY FARMS, 1934-35.

Class of Food.	Total costs.	Per cent.	Per Cow.			Per Gallon.
	£	%	£	s.	d.	d.
Purchased foods	859	29	3	5	1	1.26
Home-grown foods	1268	43	4	16	0	1.87
Grazing	812	28	3	1	7	1.20
TOTAL	2939	100	11	2	8	4.33

The above figures are based on detailed records kept by the ten farmers under the supervision of Reading University. The costs of purchased foods were obtained from the straightforward records of quantities fed and their prices. The cost of home-grown foods (other than grazing) was fixed on the basis of their "food values" at the farm, *i.e.*, on the basis of the cost of obtaining alternative purchasable supplies. The total cost of all the grassland on the farms was obtained from records of rent and of all cultivations and manuring on it, the appropriate share of this cost was then charged to the dairy cows on the basis of monthly grazing records of all livestock carried which were kept by the farmers. The aftermath of the hay-crop was charged at the equivalent of one-third of the full costs of the meadows, less the direct hay-making expenses.

Table IV. shows that home-produced food and grass together accounted for 71 per cent. of the total food bill. The bulk of the home-grown foods on these ten farms consists of hay, so that hay and grass together can be regarded as the basis of the feeding. Grass alone accounted for 28 per cent. of the total food bill, a proportion which is appreciably higher on these farms than it is in other milk producing districts in the South of England for which records are available.

In order to arrive at the relative costs of these three main groups of food it is necessary first of all to convert them to a common denominator. This can conveniently be done by using "the starch equivalent" basis. According to the *Report of the Departmental Committee for the Rationing of Dairy Cows* 6 to 7 lbs. of starch equivalent are required daily by each cow for maintenance purposes only, and over and above this the cow requires 2½ lbs. of starch equivalent per day for every gallon of milk produced. Using this theoretical basis the total quantity of starch equivalent required to produce the 172,274 gallons actually produced on these ten farms in 1934-35 was 1,068,065 lbs. The starch equivalent content of the purchased foods fed during the year amounted to 183,078 lbs., and the corresponding figure for home-grown foods (other than grass) was 312,361 lbs. The balance of 572,626 lbs. of starch equivalent must therefore have been supplied by the grass*. This figure must be regarded as a minimum figure, and it would be more correct to state that the grassland must have supplied at least this amount of starch equivalent before the milk output could have been produced. It follows from these figures that the proportions of the total starch equivalent consumption on these farms were made up as follows :—

17.1% was supplied by purchased foods
29.3% ,, ,, ,, home-grown foods
53.6% ,, ,, ,, grass.

---

*This method of calculation is based on a technique developed by the Advisory Economists at the Midland Agricultural College and at Manchester University.

These proportions are in striking contrast to the percentage distribution of the food bill shown in Table IV., particularly so far as the grazing figure is concerned. Thus, in terms of cost, grazing was only responsible for 28 per cent. of the total, but, in terms of starch equivalent, it was responsible for over 53 per cent. of the total consumption. Since the bulk of the home-grown foods consisted of hay the position can be summed up by saying that only one-sixth of the total starch equivalent required by the cows was derived from purchased foods while the remaining five-sixths came almost entirely from the grassland in the form of grazing in the summer and hay in the winter.

The next step is to show the cost per pound of starch equivalent supplied by purchased foods, by home-grown foods and by grazing. This is done in Table V.

TABLE V.

COST PER POUND OF STARCH EQUIVALENT FROM VARIOUS FOODS ON 10 BLACKMORE VALE DAIRY FARMS, 1934-35.

Class of food.	Total starch equivalent supplied.	Total cost.	Cost per lb.
	lbs.	£	d.
Purchased foods	183,078	859	1.13
Home-grown foods	312,361	1268	0.97
Grazing	572,626	812	0.34

These figures show that, so far as these ten farms are concerned, purchased foods were by far the most expensive form of energy and that grass was by far the cheapest. Thus the average cost per unit of starch equivalent supplied *via* grass was only 0.34d., but every unit of starch equivalent fed *via* purchased foods cost 1.13d. Since home-grown foods consisted almost entirely of hay the figures show that grass in this form also supplies starch equivalent more cheaply than purchased foods, though the advantage (0.16d. per lb.) was not so pronounced in this case.

On the other hand it must be remembered that purchased foods possess certain advantages, such as their concentrated form, and the fact that their supply can be controlled, and their higher cost per unit of starch equivalent is no doubt partly due to this. Purchased foods also contain a considerably higher proportion of protein and the cost per pound of protein equivalent which they supply is therefore comparatively lower. Calculations for these farms show that almost exactly equal amounts of protein were supplied by purchased and home-grown foods, the cost per pound of protein equivalent being 4.6d. and 6.7d. respectively. The relative economy of purchased concentrates as food for dairy cows cannot, therefore, be judged solely on the starch equivalent basis.

Under the farming conditions which obtain in the Blackmore Vale, as well as in other extensive districts of the south and south-west, it should be possible, however, to regard purchased foods merely as an essential supplement to the main ration and to rely on the productivity of the grassland to supply, not only the maintenance ration, but a large part of the production ration as well. This being so, it is obvious that the cost of milk production as well as the general financial results of this group of farms will depend mainly upon the efficiency with which the individual farmers utilise their grassland. In fact the most important single factor in the success or failure of these dairy farmers is their ability to make economical use of their chief raw material, their grasslands.

DAIRYING IN DERBYSHIRE, LEICESTERSHIRE & NOTTINGHAMSHIRE

By H. G. Robinson, M.Sc.,
Midland Agricultural College, Sutton Bonington, Loughborough.

The three counties of Derbyshire, Leicestershire and Nottinghamshire are located in the north midlands and the general picture of their agriculture is almost as varied as the counties themselves. Dairying interests in these days cover such a very wide range of variety of soils, climatic conditions and the like that one cannot define with certainty the areas which are considered most typical of dairy farming practice. In broad outline Derbyshire is pictured as a county that in the north-west has considerable areas of high lying ground. Approximately 15 per cent. of the total agricultural area of 535,000 acres is classified as mountain and heath land. By contrast, Leicestershire's percentage of such land is negligible out of its total area of 459,000 acres with .7 per cent. A certain amount of high lying ground occurs in the area of Charnwood in the north-west of the county. Nottinghamshire's 432,000 acres include about 2 per cent. of mountain and heath that is more or less located along the western part of the county.

In the past there has been considerable diversity as regards the system of agriculture practised in these counties, though as far as the present features are concerned there is a greater measure of uniformity. Derbyshire and Leicestershire are typical of counties with a high percentage of permanent grass land, which in actual fact exceeds 81 per cent., while Nottinghamshire is more actively identified with arable interests, the area of grass land being approximately 52 per cent. To some extent one can understand the high proportion of permanent grass land in Derbyshire, from the fact that the average rainfall over the greater part of the county is from 30 to 40 inches per year. Leicestershire and Nottinghamshire, however, come within the relatively dry belt with a figure that is within the region of 25 inches. Considerable soil variations occur in the three counties, though it is of interest that the traditional dairying farms in Derbyshire were associated with that considerable stretch of country in the west and north that overlies the mountain limestone formation. In the extreme north and continuing to the east of the limestone is a thin belt of millstone grit, while towards the eastern boundary extensive coal measures and a certain amount of magnesian limestone are found. The southern part of the county is associated in the main with keuper marl and sandstone, of which there is also an extensive distribution throughout the western half of Leicestershire and a wide belt that runs through Nottinghamshire on both sides of the river Trent. The eastern half of Leicestershire has the extremely fertile Liassie formation, that gives rise to some of the richest pastures to be found in this country. Nottinghamshire has a considerable area, running nearly the whole length of the western third of the county, on the bunter sandstone, which is distinguished for its low fertility.

In agricultural as well as in other matters there is much common contact between the three counties. This is specially true of Derbyshire and Nottinghamshire that have a long common boundary, and whose county towns are only some 12 miles apart, while Leicestershire on its northern boundary makes contact with both counties. The three counties are closely linked by a common watershed, the river Trent entering Nottinghamshire towards the south west corner from south Derbyshire, and flowing right through the southern and central portion and leaving by the north-east corner. Leicestershire contributes a tributary through the river Soar, while Derbyshire provides the Dove and the Derwent. Incidentally the Derwent valley provides the cities of Leicester and Nottingham with water.

EARLY RECORDS OF DAIRYING.

Derbyshire.—The historical records of the dairying practices in the area are fairly extensive. Derbyshire in particular has been identified with dairying for a considerable period. Farey, in his survey of the Agriculture of Derbyshire (1817) refers to the cheese-making interests at considerable length, but it is quite evident that at the beginning of the nineteenth century, the milk-selling habit with which we are so familiar today was well-established. Thus " around Derby, Chesterfield and others of the larger towns, there are numbers of cows kept, and their milk sent twice a day, in small conical tubs or barrels, slung on the sides of asses or ponies to supply the regular milk-sellers or hawkers, and the inhabitants. Messrs. Strutts of Belper, in order to ensure a constant supply of milk to the inhabitants, make it in the interests of the cowkeepers, to keep up their stock of milking cows through the winter, engage for a sufficiency of milk at 1½d., to even 3d. per quart during different periods of the year, according to the expense and difficulties of procuring the article, and a person serves it out to their numerous work-people in the cotton works, and keeps accounts until the end of the week when they pay for it out of their wages. This regular supply of milk is found of the utmost benefit to the poor of Belper, and it were well that the system of milk farming was more universally spread in populous districts." In the north of the county it is stated that "much of the grass land . . . is assigned to the supply of Sheffield with milk; the farmers send their milk, night and morning, in barrels slung on a horse or ass, to agents, who for 1d. in the shilling, or 4s. per week, for disposing of seven gallons daily, employ hawkers or milk-carriers to sell it and collect the money; the usual sale price of new milk being 10d. per gallon, and of skimmed milk 6d. per gallon; at home they sell skimmed milk at 4d. per gallon." It is interesting to record that one informant related in 1812 that "the selling of new milk even at 7d. per gallon, was a profitable concern." Cheese-making was, however, the principal dairying interest during the greater part of the nineteenth century, and a considerable sale took place for consumption outside the county, and great use was made of the canals for the transport of the produce.

In the prize report on the Farming of Derbyshire, contributed by J. J. Rowley to the Journal of the R.A.S.E. in 1853, mention was made that "the banks of the Dove, where old Izaac Walton loved to watch the stream, are proverbial for the grazing qualities of its pastures, and the lands washed by the Derwent and the Trent are flowing with milk and honey." In the course of 50 years the breed of cattle changed from the Longhorn type to the Shorthorn, though it was not without a great deal of scepticism on the part of the average farmer of the day. It has always been typical of the race of farmers in this county that they do not change their customs unless assured that some decided economic advantage is to be gained by so doing. Rowley suggests, in fact, that with the introduction of the Shorthorn also came "better care in rearing and feeding, better houses and better drained lands." The inference from this is that the new race was not so hardy as the old. Cheese-making was still the dominant practice in the middle of last century. The proximity of the south of the county to Burton-on-Trent also affected the system of feeding dairy cows. Thus Rowley indicated that "the brewing season . . . extends over seven months in the year, beginning in the autumn and continuing through the winter, during which time it is estimated that 8,000 quarters of malt are mashed weekly. These grains are equally divided, or nearly so, between the farmers of Staffordshire or Derbyshire, and, at 3d. or 4d. per bushel, are cheap provender for pigs and cows. Many farmers provide pits or tanks to store the grains, at a time of year when they are most plentiful." Comment is also made of the fact that the extensive use of grains enabled a reduction to be made in the quantity of land set apart for the production of hay, thereby enabling more cows to be kept on the greater acreage of pasture land available. Also interesting was the custom of pressing the grains in pits, in which their sweetness was preserved for a considerable time. Pigs were fed on mouldy grains, while the dairy cattle received the others mixed with chopped straw and inferior hay.

In the year 1870 an innovation of some importance was the establishment of two cheese factories in Derbyshire, on the lines of the American factory system of cheese-making. The advantages that were strongly claimed on behalf of the system included (*a*) the production of cheese of more uniform quality; (*b*) to improve the quality in such cases where existing farm plants were inadequate or out-of-date; (*c*) to remove an arduous occupation from ordinary farming practice. The ideals it will be seen, have a strong resemblance to those obtaining to-day. The price that was paid for the milk for this purpose was 6½d. per gallon and in 1870 these factories turned out cheese that made 80 shillings per cwt. At first managers were obtained under contract from the U.S.A. and the experiment in this county led to a large number of visits from interested parties, including delegates from Denmark. The immediate outcome of the experiment was an extension of the factory system in the county, but some of the factories became trading concerns so far as liquid milk was concerned, whenever better prices could be realised than through cheese.

Between 1870 and 1890 the whole of Derbyshire dairying underwent a complete transformation. A decline in the price of cheese and an increase in the demand for milk for liquid consumption made dairy farmers review their policy, with a consequent transference of allegiance in favour of milk-selling. Farmers who were situated within easy access of railway stations found the change-over beneficial in more ways than one. Apart from the increase in prices, there was the saving of labour formerly necessary for the making of cheese at home. So far as railway records are concerned, the milk traffic in the county grew from 940,000 gallons in 1872 to 8,393,000 gallons in 1888. This development had its effect on the cheese factories which led to their being devoted to other purposes. The fact that the Midland Railway ran through the heart of Derbyshire with a direct service to London, Manchester and Sheffield, meant much for this particular dairying development in the County.

Leicestershire.—The agriculture of Leicestershire is most popularly linked up with the interests of beef production and the fashioning of an improved type of cattle by Bakewell, of Dishley. It is of interest to mention that Pitt in his Agriculture of Leicester (1809) in his reference to Bakewell records that "several years past he put three new milched cows in three separate stalls, an Holderness, a Scotch, and one of his own breed; the Holderness ate most food, and gave the greatest quantity of milk; the Scotch ate less food, and gave less milk, but produced most butter; his own cow ate least food, gave the least milk, and made the least butter, but laid on the most flesh ; hence it will follow that the Dishley cattle are most adapted for the grazier and the produce of beef."

It is far from correct to assume that the early cattle-breeding interests in Leicestershire were chiefly concerned with beef production, for Pitt at the beginning of the 19th century stated that the county could be considered as having considerable dairying interests. He points out that "in the neighbourhood of Hinckley, Bosworth, Appleby and Snareston, are many respectable dairies of Longhorn cows, of from 12 to 25 cows each; and again in that part of the county bordering on Derbyshire and the Trent, and also in the vale of Belvoir ; but in this latter district, the cows are in part Holderness or Shorthorn; these eat the most food and give the most milk, but the milk of the Longhorn is richer, and will produce more cheese or butter ; a considerable quantity of cheese is made, more than is consumed in the county."

Some of the early writers were at pains to discredit the suitability of the county for cheese-making, but the evidence is fairly conclusive that not only was Leicestershire widely known for the large quantity of cheese produced, but also that its quality was of a high order. Thus not only was there the native Leicestershire cheese that even 150 years ago had its distinctive colour due to the addition of anatto, but Stilton cheese was already becoming well-known. The testimony of one of the largest buyers of cheese at that period was that "in no country do they know how to make more cheese from their quantity of milk and in few countries how to manage it better. The quantity of cheese generally produced from a cow, is from three hundredweight and a half to five hundred weight per annum, average four hundred weight: when five hundred weight is produced, it must be under the following favourable circumstances : (1) the calf must be taken from the cow as soon as possible after calving ; (2) if a cow goes off her milking, such cow is taken from the dairy, and a fresh one added to keep up the number; (3) good old pasture is necessary, and plenty of grass, as well as prime stock and good management; four hundred weight per cow is produced in common, when the calf is taken away in reasonable time, and no butter is made, which is the case in some dairies, where they are so careful not to skim the milk, that butter is even bought for family use ; in other cases, the milk is skimmed on Sunday only, a family cheese made on Monday morning, and a new milk cheese the rest of the week ; when this is the case less cheese must be expected."

The importance of the cheese industry at the beginning of the 19th century may be gauged from the fact that at the Leicester Cheese Fair on October 10th, 200 tons of cheese were on offer. The surplus output of cheese from the counties of Leicester, Nottingham and

Derby, which in those days was sent down the river Trent, considerably exceeded 5,000 tons annually, Leicestershire's contribution being at least 1,500 tons.

In the management of dairy herds in Leicestershire at the period, it was customary to maintain regular breeding herds, the cows calving from Candlemas to old Lady Day, and the heifers the latter end of April or beginning of May. Cowsheds as we know them to-day were rare in the county, and the cows were kept out as much as possible, even in winter, and foddered with hay.

The subsequent development of dairying interests in Leicestershire during the 19th century followed the example of Derbyshire in many respects. W. J. Moscrop in his Report on the Farming of Leicestershire in the Journal of the R.A.S.E. in 1866, referred to the dairy farms in the eastern portion of the county being situated on the third-rate and inferior pastures and that Stilton cheese was a chief form of produce. Throughout the centre and west of the county, dairying interests preponderated, with Market Bosworth as a typical centre. By this period the Shorthorn breed had displaced the Longhorn, though the improvement in the cattle was largely by grading up with well-bred bulls. Sheep have never been a popular stock on typical dairy farms, and Moscrop refers to the fact that they were not a leading feature of these Leicestershire dairying districts. On the other hand pigs, both in Derbyshire and Leicestershire records, have been associated with the dairying industry, principally for the consumption of whey. In the middle of last century, the Tamworth breed was popular in Leicestershire.

Prior to the days of advanced knowledge as regards the making of cheese, it was a general conviction in Leicestershire, that after land was improved by draining, manuring or re-seeding, the quality of cheese deteriorated in the county, though the out-put increased.

Nottinghamshire.—The early records of dairying in Nottinghamshire are scanty in the extreme. This was, and still remains, a county in which arable interests predominate. Such dairying as was practised in the early years was largely in the vicinity of the larger towns. Its development in recent years was largely for the same reasons that other arable districts have transferred from beef to milk, though in this county, there is along the western boundary, a thickly populated industrial area that has grown up since the working of the coalfields assumed their present proportions.

THE PRESENT POSITION OF DAIRYING IN THE THREE COUNTIES.

The changes in agricultural practices since the beginning of the present century, and in particular during the past ten or fifteen years, have been as marked in these counties as elsewhere. No longer is the type of dairying determined by the locality of the farm. The railway service in the area is one which has stimulated the interest in the production of milk for sale, but in addition to this, motor transport has equalised the facilities throughout the whole of the area. As a guide to the relative importance of dairying, the figures supplied by the agricultural returns of the cows and heifers in-milk over a series of years, are particularly interesting :—

COWS AND HEIFERS IN-MILK OR IN-CALF.

	Derbyshire.	*Leicestershire.*	*Nottinghamshire.*
1885	73,888	42,270	28,636
1897	69,180	38,335	27,433
1905	72,495	42,256	28,579
1915	79,244	45,564	29,642
1925	84,980	46,283	36,837
1935	94,562	58,452	37,850

On the basis of the 1885 and 1935 figures, it will be noticed that the increase in the cow or heifer population is approximately 29 per cent. for Derbyshire, 38 per cent. for Leicestershire, and 32 per cent. for Nottinghamshire. In Leicestershire and Nottinghamshire, the change over to dairying is particularly marked.

One of the surprising features of the dairying is that it is largely concentrated in the hands of small farmers, which is indicated in the following Table :—

FREQUENCY DISTRIBUTION OF CONTRACTS ACCORDING TO GALLONAGE.

County.	*No. of contracts registered with Milk Marketing Board,* 1936.	*gals.* 1-15	*gals.* 16-30	*gals.* 31-45	*gals.* 46- 50	*gals.* 61 & *over.*
Derbyshire ...	5,146	36%	35%	14%	8%	7%
Leicestershire	3,000	45%	37%	10%	5%	3%
Nottinghamshire ...	2,604	42%	40%	10%	5%	3%

It is particularly true of Derbyshire that the majority of farms are of such a size that they are largely worked by family labour, and the strength of the dairying industry in the county is due in no small measure to this fact. Similar remarks apply to the other two counties. The major portion of the milk in the area is sold wholesale, only a very small number of producers converting it to cheese. Thus, in December 1935, the number of farm house cheese-makers holding licences from the Milk Marketing Board were: Derbyshire, 1; Leicestershire, 11, and Notts., 2.

Within recent years there has been a development of the factory and depot system in the area, for the collection and utilisation of milk. At the beginning of 1936, the number of manufacturing licences issued by the Milk Marketing Board was: Derbyshire, 18; Leicestershire 25, and Notts., 18.

In certain cases the factories serve a dual object of acting as collecting centres for the consignment of milk to markets outside the area, and for manufacturing the surplus into dairy products. In other cases there are definite manufacturing requirements served without reference to the liquid milk market. Thus Messrs. Nestle's Condensed Milk Factory at Hatton, was established in 1900, and a further one was erected at Ashbourne in 1912. To this firm credit is given for the introduction of important changes in the handling and buying of milk, for they substituted the 10-gallon can for the old 17-gallon churn; organised road transport and the collection of milk from the farms; bought the milk on a basis of weight instead of by measure; instituted the twelve-month contract for the whole out-put of a farm without limitation of quantity, and paid for it on a fortnightly basis.

Recent Progress.—The developments that have taken place in regard to milk production in recent years owe a great deal to the results of educational work. This has been aided by the close attention that is paid to agricultural education by the counties concerned. The production of clean milk has been stimulated by competitions, organised by the County Agricultural Organisers in each of the counties.

Milk from Derbyshire has a traditional reputation for good keeping qualities, and its former popularity with London and Manchester buyers was largely associated with this fact. Various reasons are ascribed for this favourable quality, and in reality it is probably the outcome of a variety of factors. In the main it must be recognised that on relatively small farms, operated largely by family labour, it is possible to exercise a greater measure of control than where the associated interests are not so keen. It is also suggested that in many of the milk producing areas, there is a clay soil with a limestone subsoil that produces a sweet and varied herbage resulting in an ideal food for dairy cows. Furthermore as most of the farmers rear all their best heifer calves, the herds of cows are both young and healthy, which is of material importance in the production of healthy milk. The water supply as a rule is both plentiful and cool, enabling an efficient check to be exercised on the cooling of the milk. In some cases, the cooling is by standing the churns in running water. It is also suggested that the importance of cleanliness in the production of milk has been appreciated because of the experience gained in the old cheese-making days, when it was found that clean milk produced the best cheese. Recent experience does much to confirm this, for cheese-making dairies dealing with milk of accredited standard are having much better results than when no control was exercised as regards cleanliness. That local conditions have some slight influence as regards milk of good keeping qualities there is no question, but in the main it is to be attributed to the methods of production that are employed.

It is not claiming too much to say that dairying in the three counties has been profoundly influenced by the work of the Midland Agricultural College. This educational centre actually started as the Midland Dairy Institute in 1895, at Kingston-on-Soar, in the south-west corner of Nottinghamshire and closely adjacent to Leicestershire and Derbyshire. The three County Councils together with the Lindsey division of Lincolnshire were the original partners responsible for its foundation. The early work of the institute was devoted to short courses of instruction in butter and cheese-making, while in 1898 peripatetic instruction in dairying through the Travelling Dairy School was instituted. Later, as the work and responsibilities of the institute grew, its name was changed to that of the Midland Agricultural and Dairy College, and still later to Midland Agricultural College. In 1913, a decision was reached to transfer the College to Sutton Bonington, and the lease of the Kingston site terminated in 1928. Dairying has always been a prominent feature of the teaching work of the College, and full use has been made of the facilities by the farming community in the counties. Farm butter-making and cheese-making are not what they were, but the demand is now for skilled workers capable of satisfying factory needs as well as for those able to tackle commercial milk-production under the accredited scheme. The College has taken an active part in studying the problems associated with the manufacture of the Derbyshire, Leicestershire and Stilton varieties of cheese, and in effecting necessary improvements in the standard of production.

In the general dairy farming practice to-day, there are few unique features that distinguish the district from other areas. The Derbyshire producer however, is regarded as having few equals in any part of the country so far as his efficiency is concerned, and his neighbours have not been slow to copy him. Derbyshire lays claim to be the first county to use a starter in the cheese-making process. It was largely the result of accident, in that Mrs. Sheldon, of Sheen, found she had more curd than the hoops would hold, and as no small ones were available a few pounds of curd had to be kept until the following day. The family were so perturbed about this that they decided to mark the cheese containing the old curd so that it should not be sold. When this particular cheese was ripe, however, it proved to be of excellent quality. After this experiment proved to be so successful, old and new curd were mixed as a normal practice, and in reality the old curd acted as a modified starter.

The cattle of the three counties are principally of Shorthorn type. The Friesian breed has an appreciable following, and some of the most notable yielding herds of the breed are to be found in the three counties. Ayrshires have recently acquired some prominence, and their distribution is ensured by fairly regular draft sales from Scotland in the Derby and Leicester markets. Derbyshire is supposed to be the home of the Blue Albion breed, but it has little local significance. The dairy farmers in the area on the whole are keen stockmen, taking a pride in their cattle, though only a very small proportion are interested in the breeding of pedigree animals. Derbyshire has two milk-recording societies, *viz.*, the Derby District Milk Recording Society, and the Peak District Milk Recording Society. The Derby Society usually has the distinction of having the highest average of all the Societies in the country which speaks well for the non-pedigree Shorthorns that constitute the majority of the cattle. Nottinghamshire and Leicestershire each have their own milk-recording society, though the latter county joins interest with Rutland. It is sometimes asserted that the increase in milk-selling as distinct from Cheese-making has resulted in a deterioration of the cattle stocks in the counties. This may be true in part, and particularly where the temptation to intensify farming practice has been at the expense of the breeding policy. There are quite a number of dairy farmers whose sole object is milk production, even to the exclusion of interest in breeding. Such herds are often nondescript in character, the chief requirements being cheap cows that are fed liberally during their lactation, and which are disposed of to the butcher when they yield less than 1 gallon a day. Some of the smaller Derbyshire farms have achieved great efficiency in the out-put of milk by concentration on intensive methods, though this could be more typically defined as cow-keeping as distinct from dairy farming. The majority, however, believe in the principle of the breeding herd, but a measure of elasticity obtains in that where regular quantity milk contracts are made, occasional additions are made of bought cows, when the breeding policy has been hampered by bad luck or disease.

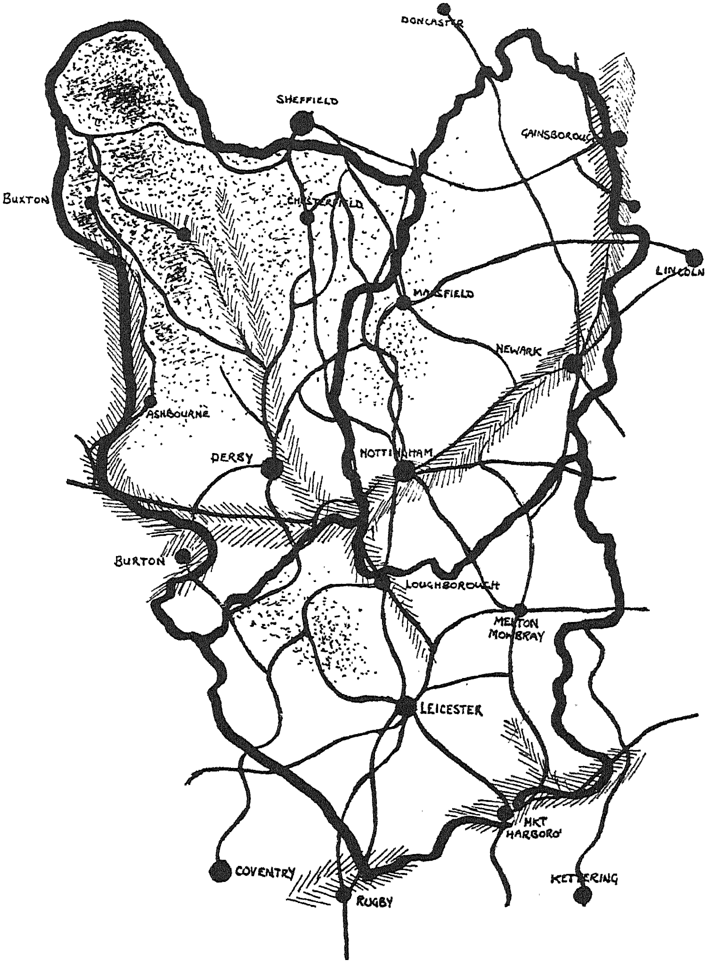
There are no particular disease problems that are more prominent here than elsewhere. It is suggested that the cows do not wear as long as in the old cheese-making days, when the production of milk followed more natural methods, with cows calving down in the spring and being fed largely on grass. The practice of milk-selling does introduce more complications, and it is possible that the intensification in dairying practice has added further problems. The ordinary troubles like mastitis, sterility and abortion interfere seriously with dairy farming, but one of the County Councils, *viz.*, Derbyshire, is tackling these and kindred problems as part of the work of the Agricultural Organiser's department.

Previous to the inpection of the Accredited Scheme, there were few inducements held out to producers to qualify for Grade A licences. Many producers however, earned a bonus from their milk buyers, independently on a bacterial count basis. The number of accredited licences in the three counties at the end of November, 1936 was as follows :—

	Accredited Licences.	*Tuberculin-tested Licences.*	*Expressed as per cent. of total producers.*
Derbyshire	790	6	16
Leicestershire ...	372	13	13
Nottinghamshire ...	163	—	7

The percentage of accredited producers may seem to be low, but it should be explained that the authorities of the three counties are strict in their interpretation of the conditions that govern the award of a licence. Considerable improvements are being effected with regard to the cowsheds, while the provision of sterilising equipment is considered essential. In the majority of cases, the dairy cows are housed in winter. Certain detail differences in management occur, but it has to be recognised that the winter housing of cows on the majority of small farms is a necessity to prevent the grass land from being unduly trampled and reduced thereby in grazing value for the grass-growing season. The practice of out-wintering younger dairy cattle previous to their entering the breeding herd is finding favour where dry land and sheltered conditions obtain. The question of management however, is governed largely by local conditions on the individual farms.

To a section of the milk producers in these counties, the returns under the Milk Marketing Board's scheme are not so good as in pre-scheme days, and this is particularly true of many of the Derbyshire producers who had enjoyed a good natural market for many years.



Map of the three Counties, shewing principal towns, railways and rivers.

DAIRY CHANGES IN VILLAGE LIFE

By Eldred Walker.

It is so different to write of anything when applied to the events of a lifetime taking place in one village in particular, instead of to the country as a whole. Each village has its own specialities, its sayings, and its doings.

Some events have had the effect of a tidal wave crashing on a seashore, whilst elsewhere they have been but as ripples in a murmuring stream, hardly seen or heard.

When the bones of one's ancestors generation after generation have been piled up against the village Church since the thirteenth century, and when one is steeped in tradition handed down and has the experience of a lifetime reaching towards the allotted life of man, one should have gathered a few ideas and impressions.

Just a country village—these are the villaces where the Saxons had their cultivations in the long long ago. None of the old-time coach roads passed through it and there is no railway within five miles. Rural, truly Rural.

Here we were seemingly born to labour and to work the land as we found it. When I was a boy, the nearest market was Bristol, 10 miles away.

Yet it was a thriving community. There was no leading squire or predominant landowner ; the farms, few exceeding 100 acres, and each one had some tillage. Teazels, wheat, barley, beans, oats were the principal crops. Very few roots were grown : their place was filled by brewers' and distillery grains, obtained by horse-drawn waggon from Bristol. Yet though there was so much arable, there was a very considerable amount of stock raising, and the wintering of sheep.

Each farmer had his herd, either large or small, of dairy cattle. Though they mainly reared their own calves, they were none too careful as regards the bull ; it might be anything so long as it did not " zett," which meant that it was inclined to use its head too freely and might be dangerous.

At that time Longhorn blood was very much in evidence. They were good milkers and gave rich milk. When crossed, sometimes with a Channel Island strain, they became brindles. A good red or a sparked colour was desirable, but farmers did not like a white, or even worse still, a yellow coloured cow.

Some of the favoured cows were mottled in the skin; in fact, they were very similar to the Old Estate Race of Sweden. By their cock horns it would appear that they had some Ayrshire blood in them. Occasionally there was a black and white Old Dutch, associated with a very large quantity of very poor milk. Also there were some crosses of Devon type, and some roans of the Shorthorn breed very different from what we know them to-day. They were of the heavy bunchy beef type.

Such were the types of the dairy cows throughout the Vale of the Chew, because herds of cows were not kept up on top of the cold hard Mendips in those days.

As to yields, farmers were well pleased if two of the cows at a milking in summer time filled a four-gallon pail and had a yield of eight pounds of butter in the week, and yet even in those days there were six and even more gallon cows.

But there was no weighing and very little measuring of milk, and certainly no recording in those days. The old oak or maple wood pails were the gauges and each farmer milked through his herd, so many different cows at each milking. Ten cows milked per hour was the great desideratum, but it was seldom reached except on Club day, when the whole village went on holiday.

During the summer time the cows were milked in the open fields. The whole household was up and downstairs at five a.m., with their thick boots on. Maester drew a cup of cider for himself and a jugful for the rest, maids and all partaking of it. Then they took their spans—a short rope of horsehair for tying the hocks of the cow together to prevent her kicking or straying. The farm boy and dog had gone on ahead to bring the cows together. Then, with the pails turned upside down on their heads, the milkers walked to the field. When the last cow was milked and the pails were full with the froth well above the top, the milkers lifted them on to their heads and carried them back to the dairy. It was considered a disgrace to spill a drop of milk and many carried the pail of milk right home in those days, without a spot of froth going over. Truly they were a strong necked generation. If it was half-past six when the milk got back to the dairy then the missus had something to say, and the farm boy would sooner have a clout on the ear from Maester than the Missus's tongue.

If it was a cheese dairy the milk had to be in the tub, and if for butter, strained into leads.

Then there was breakfast: rashers of bacon—no eggs in those days—fried potatoes with plenty of fat, plenty of home-grown, home-baked bread and skim cheese. Why, it would have been ruination to eat butter in those days; that was made for market.

Some mornings, especially Sundays, Sally the maid, had to cook the " Pap " for breakfast, a mixture of wheat flour and milk with a little salt. If not stirred unceasingly this caught on the bottom of the saucepan on the glowing embers of the hearth and became burnt. And if this did happen everybody in the village soon knew that Sally had burnt the Pap ; quite as shocking, in fact, as having holes in her stockings.

In those days the farmers' sons were very particular whom they courted. If cheese was made they looked out for a girl with money, as the make of cheese had to be kept twelve months before it could be sold, and this needed capital. On the other hand, the buttermaker desired a girl with a cold hand and a warm heart, because in those days the butter had to be worked up by the hand.

Thus it will be seen that the dairying of the village was far from being uniform. And perhaps it would be as well to take up the various lines direct from the milkers. Superstition was still rife. In an adjacent village they had their Pixie Hall and Fairy Tump, where these little people came and danced. Then there were the White and Black Witches which caused fearful happenings. Little could well be worse than for a farm to be " overlooked " ; cattle would die and milk go wrong. This had to be placated. Thus, when a cow calved, her cleansing had not to be buried, but thrown at once on the top of a whitethorn bush. If it fell off something would happen to either the cow or her calf, but if it remained and dried up they would prosper.

Thus also, to milk a cow on the ground was to dry her milk away, and in July the farmers firmly believed that the milk went from the cows' udders into the young grains of wheat which were then in their milky stage.

To bathe the udder with either hot or cold water alone would cause the loss of a quarter. Marshmallows were generally boiled in the water and elderflower ointment and goosegrease rubbed in afterwards. Sometimes the latter was a year or two old, as the longer it was kept the better it became, and got into the milk and, of course, into either the cheese or butter.

Then it was believed—and has since been proved to be true—that not to strip a cow clean, was soon to dry her off. And it was firmly believed that on Christmas night the cows knelt down in prayer and that if they were so seen, those who saw them would die ere the year was out.

Very little value was placed on winter milk ; it cost too much to produce. Heifers were brought and calved down in April and May, the calves being run on them for a while to bring their teats down, The older cows came in at various times, but they were especially desired in April by the cheese makers.

In those days calves did not die young as at present. They had far more opportunities for living. Firstly, there was a good demand for steers in those days, when the roast beef of Old England was appreciated; thus the strongest bull calves were kept back, weaned, steered and in later years fed out and sold. Only enough heifer calves to keep up the renewals in the dairy were kept, and the rest did not go to market early; they went into veal. Each farm had a stage in those days, on which these calves were placed. They were fed on new milk as drawn from the cows and oatmeal. One had to give them the finger to induce them to suck, as it was believed they would bloat if allowed to drink, and only those who have experienced it can tell what it is to have one's finger ground against the sharp teeth of a forty pounds a quarter calf. In those days the weight of a calf was by the quarter and not by the whole carcase.

The great slaughter of these stage calves took place on Good Friday to supply the demand for Easter veal. Each village had its butcher in those days, and two things he always looked after on Good Friday—the sweetbreads and the calf's stomach, that constitutes the vell, from which rennet is obtained. These were then considered to be far better from these stage-fed calves, and the cheese-making farmers' wives were eager buyers of these as then they had to make their own rennet.

Two methods were adopted for treating these vells. One was to salt them heavily and then hang them in the kitchen chimney to dry for a month or two; then a piece of the vell was cut off and put in the cheese tub to curdle the milk. The other was the wet cure; a very strong brine was made and to this was added sweet briar and balm, and the vells were put in a stoneware jar and the mixture poured on them and the vells were allowed to age. One whiff of a freshly opened vell jar was sufficient to last one a lifetime, but the rennet was there, and that rennet curdled the milk, which was all that was required of the vells.

Now a word must be said of the calves that were weaned. These were put into a dark shed on a floor of wooden faggots to provide drainage. They were given skimmed milk or whey with linseed cake jelly. They knew little about prussic acid in those days. On Good Friday morning the farmer came with a pair of sheep shears and ear-marked them. This blood letting was considered to be a preventative against evil. Then the calves were turned out to grass. Being "moonblind" through coming from the dark into the light they galloped like wild things and, as often as not, one or two of them had to be rescued from the horse pond before the day was out.

But in those days at least one third of these weaners did not reach a year old. They fell victims to Black Quarter or Quarter Evil. This disease generally claimed the most thriving and best for its victims, and when one of these calves or yearlings died, it was skinned out and its meat put up in the forks of an apple tree to dry, and feed the dogs, thus spreading the disease unconsciously.

Incidentally, in those days the farmer considered that he was really bad off if he had not some indifferent hay for the young cattle and the bull.

The village cooper was a great man in the local dairying world ; in fact, it could not have got on without him and the farm copper. Firstly, he made those beautifully finished oak or maple wood milking pails. These were scrubbed with salt and then dipped in the copper of boiling water to sweeten them. Sterilisation was unknown, of course, then. Then they were hung out on the pail fork in the open air to dry and sweeten. At noon one was taken off and a pail brush rapped on its bottom ; it was as effective as an Abyssinian drum in telling the farm labourers dinner was ready. Often the dinner of ham, bread, beans and potatoes was packed in the pail and carried out to the men in the fields, and it was ready at hand for the milking in the evening.

The great pride of a cheese maker's wife was a copper cheese tub. The tin tub might be useful, but the copper retained the heat better.

Very few scientific appliances then, with the exception of the thermometer. The milk was mixed, the morning's being scalded, in a big tin in the copper. They were afraid to heat the overnight milk because it might turn sour.

At that time we had an annato mill in the parish. The use of this was nearly universal in the cheese world of those days. It concealed dirty milk admirably, but one could taste it in the cheese. There was the three-bladed curd knife for cutting the curd and two forms of curd breaker.

If there was an undesirable visitor to a farm, it was one who arrived whilst the cheese was in the tub.

The piggery was closely associated with the dairy. Whey had to be fed to the big bacon pigs, twelve to fifteen scores each. Why have far to carry it ? So the piggery was near at hand.

The cooper had made these big oaken vats and vollowers, but the village carpenter had his look in with the wooden curd cooler. This was the only thing made of deal or white wood in the dairy, except the cheese tub stand.

But the cheese presses were real works of art. The pressure unit was a large base filled with stone spar, scrubbed glistening white; to the top of this was attached a rope that went over a pulley and on to a small windlass. If the base slipped when the cheese was in the press there was trouble, as the rope came off the pulley and could not easily be replaced. And if it was let down too rapidly it drove all the fat out of the curd. Such was the idea. Some economical housewives strained the whey, or rather set it, and made whey butter; others considered that this was robbing the pigs.

At last the cheese went up into the cheese-room, where it was turned daily for twelve months, or to such time as the local cheese factor came and purchased it. A wonderfully useful man to the cheese maker, was the cheese factor in those days. He came, bored each cheese, stopped to dinner, drank the farmer's gin and cider—the best of both—nearly parted on a shilling per hundredweight at midnight; the farmer's wife put him up in the best bedroom and the deal was concluded in the morning. And if there was a vital secret to be kept, it was what each farmer obtained for his cheese, or else they placed their souls in danger in relating the price they had been paid. There was very little dairy work on a cheese-maker's farm during the winter.

The butter-makers were the smaller farmers and their wives worked exceedingly hard. They also relied on the cooper for their utensils. The plumber had the first look in with the milk leads, into which the milk, as brought in from the cows, was strained through a horse-hair sieve. These leads were scrubbed with salt and plenty of scalding water; if on the boil it was supposed to buckle the lead. After setting for twenty-four hours, the cream was taken off by means of a hollowed perforated tin disc or skimming dish. This had to be done carefully or a portion of the cream was lost. The cream was then stored in earthenware pans. Some scalded the cream, others used it raw for butter making.

In those days wooden bowls with a handle were used, and I can remember a pump churn being used by two lusty farm labourers, who could not pull the plunger up through the thickened cream when the butter was coming, and lifted churn and all and allowed it to drop on the floor with a bang.

Then another had a box churn with the beaters ranged on a spindle, and the churn leaked at the bearings. Then came the barrel churn with straight beaters, and cooper for a while was busy.

But he had a terrible shock, when one of the farmers married a Cornish girl; she zammed her milk and got the cream so thick that she churned it by stirring it with her hands in a wooden trendle, and it was said that she made more butter this way than could be got by any other. People said no matter how dirty her hands were when she started, they were as white as lilies when she finished.

The others took the butter from the churn with their hands and worked it in the trendle, which was scrubbed with salt to prevent the butter sticking to the wood. It was then weighed with wooden scales and an iron weight. Sometimes the strings of the scales got wet and they did not balance properly. Then the lump of butter was thrown in and out of a wooden cup, to give it a domed shape, set on a mould board—a thin wooden disc with a crown or rather slight dome to it—then a neat design was raised on the butter by a print stick. Pressed designs were not popular in those days. Then the butter was floated in a lead filled with spring water.

During the evening the farmer's son or boy had to go "butter leaving"; that was to gather broad dock leaves, take them home, reeve them—that was to remove the rib along the back. The leaves were used for wrapping up the butter in the morning.

Many a bloody battle has been fought on the site of an old mow staddle for the possession of these then precious dock leaves between the boys who would gather them; one punched the other's nose and in turn got a black eye.

The butter-maker during the summer had other things in store. After skimming her milk, she allowed it to remain for another twenty-four hours and skimmed again. Then she proceeded to make skim or household cheese with that milk. If it was slightly sour the cheese came hard, and if kept it duly developed into a Blue Vinney, but it needed a beetle and wedge to get through the rind. It was very pleasant eating and sustaining, or, rather lasting, as it occupied digestion for some time. The softer kind developed some gas. The farm labourers cut off a slice, sat by the fire and toasted it. It extended into a leather-like thong, the other end they put in their mouth and continued to chew away at the rope as long as it lasted. This cheese used to make 28s. per cwt. at Wells May Market.

It constituted the kind known as Dundry Dap. Tradition has it that a Dundry farmer was taking a load to market, when the waggon wheel came off, and the cheese fell out. One of these rolled down over the side of the hill and could not be found. The farmer took the others to market, and when close home on return he found the missing cheese. It had struck a church tower in the valley below and dapped back up again. Tradition has it so.

Anyway I can remember all these varieties of cheese when a boy. Then it was dairying by rule of thumb and observation.

Well do I remember an outbreak of foot-and-mouth disease in mid-winter and on coming down in the morning found each cow's nose connected by a pillar of ice to the crib, the saliva from the animals' mouths having frozen. The treatment was to paint the animal's head with Stockholm Tar. Yet the produce of the milk from this, and other affected herds, was allowed to be made up and sold for human consumption. Apparently no ill effects followed.

Things went on much like this until the terrible year of 1879, when all the cattle and sheep were affected by, and many of them died, from liver fluke. This put many farmers out of business. When other farmers came to replace them, they brought other methods. The old-fashioned barrel churn, the work of the village cooper, was no longer in request. Factory-made churns were the great desideratum and the keenest competition prevailed between the different makers. Then someone in the village purchased an end-over-end churn; six months later the lid end came off, and the week's cream was wasted.

Then tinned steel crept into the dairy, first as pails, then as yokes and tins for milking in the fields. These tin pails were slippery on the milkers' heads, whilst being carried, and this led to milk trunks, to be put in the farm carts and hauled back to the dairy.

The heavy oaken cheese vats were replaced by those made of tinned steel. The old box cheese presses had been replaced by the screw lever press, Day of Mark being a famed maker of these.

In the eighties rapid transformation was taking place. A Swedish doctor, De Laval, had invented a machine that by means of centrifugal force, separated the cream from the milk, and the separator began to revolutionise the dairy industry of the world. Well do I remember the interest taken when I purchased the first Melotte, and a few weeks later my best butter customer gave up, saying that my butter no longer had any flavour. In fact, the cream ripening of the milk in the leads before it was skimmed developed a rich beautiful ripe hazel nut flavour.

Then Technical Education began to make headway alike with cheese and butter making. The Bath and West of England Society had established its Cheddar Cheese Instructional Classes. Our farmers' wives and daughters learnt of the Cannon, Candy and other methods, in fact, the whole gamut of the early ripening and slow maturing systems, of the uses of the acidimeter and the starter. And those farms with bad reputations as regards cheese, found that this was due more to bad management and impure water than to bad pasturage.

The goat, as a preventative of abortion, was banished from the herds of cows, and cows that had aborted were no longer drenched with two red herrings, boiled to a jelly, for three mornings, a miss of three and then a renewal of the dosage. Cases of anthrax were no longer attributed to the malign influence of some old woman who flew on a broom by night.

The mowing machine was fast replacing the old world scythe, and hay-making implements other than pikes and rakes were introduced. The dreadful years of the eighties had caused many of the thinner soiled arable fields to become derelict and they were allowed to tumble down to pasturage. This, in turn, brought a thinning down of the children crowding around the cottage doors. Farmers and their sons emigrated. These children went to work and grew up in the towns. Country life no longer had any attraction to them, with cow milking twice a day, including Sundays. There was also the laborious churning associated with butter-making, and even more labour with cheese making.

Grazing of cattle to beef no longer was remunerative, and in turn fewer calves were reared. The annato mill no longer functioned, and many a piggery became roofless. A rapid deterioration of the countryside had set in.

Even the cattle were changing: the majority of the herds were now non-pedigree Shorthorns. Very useful, in fact they were dual purpose.

Then came a change—a Bristol milkman saw an opportunity of obtaining an untapped milk supply. He came out with his horsed lorries and for the first time the rattle of the milk churn was heard in the village. He had a monopoly and bought his summer milk at 4½d. per gallon, and established a depot for the reception and the cooling of the milk.

Soon other buyers came and most of the hitherto cheese and butter makers invested in a "fifty" and "thirty," which was a fifty shilling horse and a thirty shilling cart, to run the milk to the nearest station over 5 miles away. Buyers came from London and elsewhere, and the first train in the morning often carried 200 big churns of milk. The locals hated the London measure of the barn gallon. But what a fine opportunity was offered every morning for the dissemination of news and local gossip.

Soon the farmers found that the same price was paid for milk as for quality milk. Quantity became their aim ; they introduced high-yielding cattle and milked them to old age. It was milk and more milk. The cheese tub was turned on end. The butter-maker's dairy with all its up-to-date utensils—separator, butter-worker, churn—were neglected. Everyone purchased a new refrigerator to cool their milk, though an adequate supply of water was a great difficulty with many.

The milkmen became more and more exacting ; the returns of sours, which in many instances were mere non-sales, were numerous. If the milk was adulterated the farmers had to pay. They had fairly burnt their boats ; they could not return to either cheese or, butter making ; the fatted calf was no longer popular. In fact, they were in the tentacles of an octopus.

Those fifties and thirties and the driver was a continuous drain. Some tried to turn to Caerphilly cheese making, because it gave a quicker return than Cheddar.

The milk buyers were all right as units, but were more ready to combine than the producers and annually there was the big battle of milk prices with the threat by the farmers to throw the milk down the drains and the statement by the buyers that they had more milk offered than they could utilise. With a last minute settlement a big co-operative firm came and built a huge dairy. Local milk producers put more money into it than they could afford, as they were encouraging a customer right in their midst.

Then came disaster—the farmers no longer were part owners, their cash was gone and the factory sold and once again they had to bargain with the Trade.

Increasing knowledge of the improvement of their grasslands, the uses of feeding stuffs and selection of their cows, had enabled them to increase their yields of milk just at a time when it was seemingly, less and less wanted.

Once more disaster loomed ahead of them and they were glad to embrace the possibilities of the Milk Marketing Board. Certainly it provides an outlet for their milk, but when they find what remains of the cheque that they should have had when the many charges are deducted, they have serious misgivings. Some have installed milking machines—quite a different proposition to the first Thistle—in order to lessen labour costs with the overtime that has to be paid. One or two have become Producer-Retailers, others would qualify for the Accredited Roll, were it not such a difficult proposition in Somerset, and so they just go on supplying depot milk, whilst their one-time cheeserooms are filled with the disused implements and dairy utensils of the have-been order. Of little value as antiques, yet they are mute records of how the local farmers have endeavoured to grapple with the successive dairying problems of a man's lifetime in one village.

Though the cuckoo may call all day in May, we no longer hear the cow boy's call or his dog's bark bringing in the cows to be milked in the morn. The Farmhouse Wench is no longer represented by Sally ; even more, no longer is there a Miss to assist the farmer's wife.

Each morning the bus takes the growing intelligence of both the boys and girls in the village for their higher class secondary education in the town. A generous County Education Authority provides bicycles for the remaining boys to enable them to seek their education elsewhere.

No one appears to think of our farms as affording either work or a possibility of a living in the future, and providing education suitable for farm life and work.

APPLIED BACTERIOLOGY IN DAIRYING.

By Dr. A. T. R. Mattick,
National Institute for Research in Dairying.

It is perhaps not too much to say that success in the dairying industry, in many of its ramifications, depends upon a knowledge of the elements at least of bacteriology. It is proposed as far as possible within the compass of this short paper to give an account of the more important ways in which bacteria affect the production of milk and the manufacture and distribution of dairy products. It will be necessary to consider not only those non-pathogenic bacteria, which if uncontrolled may cause serious loss, but some of the pathogenic types with the depredations of which the farmer is only too familiar.

Milk Production.

It is not the intention to present a treatise on clean milk production, the essentials of which must by now be familiar to the readers of this journal, but rather to lay emphasis upon certain points which in the light of recent knowledge have gained a new importance.

The Flora of the Udder.

As milk leaves the udder of a healthy cow it contains (per 1 ml.) only a few hundreds (or thousands) of organisms which, as a rule, cause no difficulties. There is a tendency, however, for the milk of old cows to contain greater numbers of organisms than that of young cows and for the numbers per ml. to be greater in late lactation. It may therefore happen that if there is a high proportion of old or stale cows in the herd, the bacterial count of the mixed milk may be higher than desirable and a cause of some embarrassment to the careful milk producer.

The Fore Milk.

The fore milk is known to contain a relatively greater number of organisms than the bulk of the milk taken at a milking, and for this reason it is good practice to reject the fore milk.

In rules for clean milk production it is recommended that the fore milk should not be drawn on to the floor. One reason for this is that the milk may soak into the floor and form an admirable breeding ground for organisms which may find their way into the milk.

Mastitis.

But there is a more substantial reason than this for deprecating the practice. It has been estimated that on the average some 30% of our milk cows are suffering from mastitis in one or other of its forms, and that of these the majority harbour the organism, *Streptococcus agalactiae*, which causes chronic mastitis (garget or weed). The aggregate damage to the milk industry resulting from mastitis alone is calculated at roughly £3,000,000 (three million pounds) per annum. It is often a feature of this disease that small clots or flakes are present in the fore milk which may contain the causative organism in considerable numbers. If fore milk, or indeed any milk from infected cows, is drawn on to the floor or is allowed to contaminate bedding, healthy cows may be infected by contact, *via* the teat orifice.

In any scheme for the eradication of mastitis by segregation the detection of infected cows by laboratory examination is essential. But many cows show small clots in the fore milk which may escape detection unless special precautions are taken to observe them.

It must not be thought that *all* cows infected with mastitis can be detected by the presence of clots, but if instead of milking fore milk on to the floor it is taken into a special strip cup in which the first streams of milk from each quarter are received on to a dead-black surface, which retains and shows up small clots before passing into the cup below, many cases will be revealed and enable active steps to be taken earlier than would otherwise be the case. Moreover the fact that such an examination can be made twice daily is of great value.

Washing Milkers' Hands.

Apart from the aesthetic desirability of this practice it has real practical worth. Dirty hands harbour a number of types of non-pathogenic, but nevertheless undesirable organisms which may pass into the milk and contribute to the general contamination. For example *Bacterium aerogenes*—an organism allied to *Bacterium coli*, but not usually of animal origin, is often found in considerable numbers on dirty hands. Not only non-pathogenic organisms, but the organisms of mastitis and abortion (in cases where the disease has infected the udder) may be carried from cow to cow on the milkers' hands.

From time to time cows are found to be suffering from an infection with streptococci (of human origin) of types which have not infrequently given rise to disastrous epidemics of septic sore throat. One of the ways in which cows may become infected is obviously *via* the milkers' hands. Moreover diseases such as typhoid in one or other of its forms may also reach the milk on the hands of the milkers. The health of the cows or of the consumers may rest upon the thorough washing of the hands, and from the bacteriological standpoint it is thoroughly worth while to insist upon it previous to the milking of each cow.

Washing the Udder.

It is essential to have some means of freeing cows' udders from the dirt which, under practical conditions they are bound to acquire. The best method, and the one most usually followed, is washing—the udder being kept free from long hair by periodical clipping. But a warning is necessary in connection with the use of udder cloths. The number available must be ample and they must be sterilised, preferably by boiling, after use. Like unwashed milkers' hands, udder cloths if not properly cleaned may carry mastitis from animal to animal. It is well worth while to arrange that all first calvers be washed before the older cows and further to arrange that all cows suffering from any form of mastitis are dealt with last.

The function of washing is not to attempt what is a hopeless task, the sterilisation of the outside of the udder, it is rather to remove dirt which may fall into the milk and carry numbers of bacteria with it. Dried dung, for example, is actually a more prolific source of *Bact. coli* in milk than fresh dung.

Occasional Udder Infections.

On occasion the milk producer is worried by the presence in his milk of organisms of the coliform type—*Bact. aerogenes.* Strict supervision of all the details of clean milk production fails to reveal faults and in such cases an infection of the udder with *Bact. aerogenes* or closely allied organisms may be suspected.

Milking Machines.

The sources of contamination described above all add their quota to the total numbers of micro-organisms found in milk drawn by hand, but the widespread use of milking machines has tended to set new problems. Before the elements of milk hygiene were so widely known as they are to-day, many farmers abandoned the use of milking machines, which mechanically may have been satisfactory, because of the poor sanitary quality of the milk taken by their use. It did not occur to the farmer to blame himself. It is now known that excellent milk may be secured by the use of machines provided that they are efficiently managed, cleansed and sterilised. From the bacteriological standpoint there is, with the above proviso, much to be said for their use. But modern milking machines are every bit as capable as the older types of yielding the most heavily contaminated milk if they are neglected. Recent discoveries of the properties of the bacteria which gain access to milk from ill-kept milking machines emphasise the necessity for regular and thorough sterilisation of all parts with which milk comes in contact. A discussion of these properties will be found when the question of sterilisation is dealt with.

Coliform Organisms in Milk.

The organisms belonging to this group have for long been regarded by the layman as of fæcal origin, and their presence considered to be objectionable because of other undesirable types that may accompany them. Owing to their rapid growth in milk at favourable temperatures they directly affect the keeping quality, and often cause difficulties in some manufactured dairy products. It has long been known that by no means all the organisms embraced by the term *coliform* are fæcal in origin. The so-called *aerogenes* types are found only in small numbers in fæces, but are very common on fodders, in some water supplies, and on the surface of ill-kept utensils. Fæcal coliform organisms are of course common in milk, more common in winter when the cows are housed than in summer, but it is not necessary to postulate the presence of dung in milk when coliform organisms, a term embracing plant and animal saprophytes, are found.

STERILISATION OF UTENSILS.

It has often been said with a good deal of truth that if without other alterations in buildings or technique all milk utensils were sterilised, there would be an astonishing general improvement in the sanitary quality of the milk supply.

Although a number of organisms of various types get into milk during milking the amount of contamination is generally small in comparison with that received by milk taken into ill-kept utensils. This is now well known and it is accepted that steaming at not less than 210°F. for ten minutes will virtually sterilise well washed dairy utensils.

But it has recently been shown that many of the organisms found on dirty dairy apparatus of all kinds, strainers, coolers, pails and churns, have special properties—that of resistance to destruction by degrees of heat which kill ordinary non-sporing organisms. A very large and increasing proportion of the liquid milk supply is being pasteurised, and the bacteriological quality of the raw milk is now a matter of concern to the pasteuriser. It was formerly believed that, within fairly wide limits, the quality of raw milk destined for pasteurisation was not of great importance, because it was thought that pasteurisation at 145°F. for 30 minutes would kill the great majority of the organisms originally present. When the utensils at the farm are sterilised it has been found that the numbers of organisms surviving pasteurisation are very small, amounting only to a few score or a few hundreds per 1 ml. of milk even when, owing to high temperatures, the numbers in the raw milk are large. The case is quite different when milk is taken into unsterilised apparatus, and the following figures illustrate the two cases :—

Sterile utensils.

Raw milk. Count per 1 ml.	Same milk after pasteurization. Count per 1 ml.
880,000	800
1,560,000	340
1,480,000	140
5,000,000	90

Unsterile utensils.

Raw milk. Count per 1 ml.	Same milk after pasteurization. Count per 1 ml.
252,000	40,000
1,160,000	15,000
372,000	25,300
356,000	25,000
1,250,000	186,000
1,060,000	172,000

It has been found in very many instances than when the numbers of bacteria which survive pasteurisation are large they may be greatly reduced or practically eliminated by the mere sterilisation by steam of all the milk utensils. This applies particularly to milking machines, which if neglected may contribute millions of heat resistant organisms to the milk. Under the old Milk (Special Designations) Order definite numerical standards for numbers of bacteria were laid down and a medium known as Standard Agar was used for testing samples in the laboratory. The standard for graded Pasteurised Milk was a maximum of 100,000 bacteria per 1 ml. In making this examination milk was diluted 10, 100 and 1,000 times and an equal quantity of each dilution mixed separately in Petri dishes, with standard agar, and incubated. After incubation it was often found that on the 1/100 dilution a proportionately much larger number of colonies grew than in the plates from the 1/1000, *e.g.* :—

Plate Count on Standard Agar—Pasteurized Milk.

1/100 dilution. Colonies.	1/1000 dilution. Colonies.
1,250	30
800	2
1,348	80
232	9
1,056	20
510	—

When 1% of sterile milk was incorporated in the standard agar during manufacture it was found that the discrepancy disappeared, and the plate made from the lower dilution contained much more nearly 10 times the number of colonies on the higher one, than when a medium containing no milk was used. The new medium did not significantly increase the count of good raw milk, but with pasteurised milk the increases in numbers of bacteria growing on the plates were often very large indeed. It was also found not only that the numbers of colonies which grew increased, but types of bacteria which failed to grow on the old standard agar grew well on the agar containing added milk. These were largely the heat resistant types associated with dirty utensils. It will therefore be seen that a study of the bacteriology has resulted in appreciation of the fact that good milk is as necessary for pasteurisation as for distribution in the raw state, as it has been found that many of the heat resistant organisms may, under favourable conditions, have a deleterious effect on the keeping quality of milk. The oft repeated argument that pasteurisation, if it became obligatory, would depress the standard of milk production can, therefore, no longer be sustained. Incidentally those organisms which grow in parts of the plant during pasteurisation also grow well in milk agar, and milk agar will have the effect also of enforcing improvements in plant management.

STARTERS USED IN CHEESEMAKING.

The cultures of harmless streptococci which produce fairly large quantities of lactic acid from milk sugar at temperatures about 72°F. are known as "starters." They are used in cheese and butter making for very definite reasons.

Milk which is ordinarily used for cheesemaking even when it is pasteurised contains a variety of organisms which, though their numbers may not at all times be great, are capable of rapid growth under the very favourable conditions found during some stages of cheese making. Many of these organisms, such as those belonging to the coliform group and a variety of cocci, yield growth products which may be objectionable either because of their flavour, or because they may spoil the physical properties of the cheese.

In cheesemaking the first function of a starter is to produce rapidly that acidity in the milk which is most favourable to the action of the rennet which coagulates it. To facilitate the growth of the starter organisms the temperature for cheddar cheesemaking is usually about 84°F. Now starter is normally cultivated overnight at about 72°F., and when the curd is cut and scalding begun the temperature in the vat is taken to 100°F. or more. The starter organisms are, by the very nature of the cheesemaking process, required to be accommodating and capable of growth over wide ranges of temperature. This property is common to many species of micro-organisms provided the changes are gradually made. But changes of temperature in cheesemaking are not very gradual and in all the circumstances it must be regarded as remarkable that growth and acid production proceed throughout cheesemaking as smoothly as is usually the case.

The acid produced by the streptococci which predominate in starter is nearly all lactic acid, but if starter is cultivated at too high a temperature, some acetic acid is also formed by fermentation of the milk sugar and a smell like vinegar may readily be detected. Such a starter may give poor results in practice.

It has already been mentioned that a variety of organisms are present in milk, and that these, if they grow, produce objectionable flavours. But in the presence of an overpowering number of starter streptococci which are deliberately added, other organisms are usually unable to compete, largely because of the acidity produced. It sometimes happens that in the early stages of the process, before the acidity has become inhibitory, some coliform organisms are able to grow, and a " floating " or " pin hole " curd results. But when the acidity in the curd reaches 0.7 to 0.8% as shown by an acidity test of the whey just before " milling," only comparatively small numbers of other organisms can grow, as they find the conditions unfavourable. Nevertheless some of the so-called miscellaneous organisms (those other than lactic acid bacteria) are themselves able to endure fairly high concentration of acid and grow slowly. Although in normal cheese they are only a fraction of the total numbers of bacteria their actual numbers may be fairly large and it is probable that they contribute something to flavour production. It is not too much to say that the whole process of hard cheese making depends primarily upon the production of lactic acid by the starter organisms. They remove the milk sugar which at the concentration found in milk may easily be attacked by a variety of other bacteria, and produce lactic acid which virtually inhibits the growth of undesirable organisms. This effect of acidity is enhanced by the addition of salt which also plays its part in restricting the variety of the cheese flora. Cheese, therefore, does not putrefy as it would certainly do if sufficient lactic acid had not been formed.

FACTORS IN CHEESE RIPENING.

After a few days the streptococci which have increased throughout cheese making begin to decline in numbers partly because of the lack of milk sugar for their growth and partly because of the acidity they have themselves produced. But cheese ripening does not depend solely upon the activities of the starter organisms. Rennet, in addition to its first function of coagulating the milk, has the property, by virtue of the enzymes it contains, of digesting the green cheese curd during the process called ripening. In digestion, the casein and other proteins remaining in the curd yield breakdown products of simpler composition, and these are able to support the growth of the *lactobacilli* or rod shaped organisms. But these organisms need some substance of the nature of a sugar, and galactose which exists in close combination with casein and is liberated when it is split up, may be the sugar which is used by the lactobacilli after all the original lactose has disappeared. The lactobacilli are able to withstand the acidity of the curd and to grow in the virtual absence of oxygen, and soon begin to replace the streptococci as the predominating flora. Salt is, of course, added to the curd at milling. It is not soluble in protein or fat which together make up the great bulk of the solids of cheese, and it passes into the water which constitutes about ⅓ of the weight of the cheese. Some of the constituents of the "solids-not-fat" or protein of the cheese are soluble in salt solution, and are therefore made more available for the growth of micro-organisms. But the actual concentration of salt in the water phase of cheese amounts to about 6%, and only organisms which can withstand this concentration can grow. This the lactobacilli are able to do and this faculty constitutes another reason for their predominance at this stage. The ripening process is now well under way, and as it proceeds the acidity diminishes, the protein is rendered more soluble, and finally the cheese is "mellow." It is therefore seen that by their faculty of acid production, their ability to grow under semi anaerobic conditions and their resistance to low concentrations of common salt, the lactic acid bacteria play a predominating part in the process of cheese-making.

Some idea of what may happen when the making and ripening processes go wrong is afforded by so called "Stinker" cheeses.

Amongst the undesirable bacteria nearly always present in milk are varying numbers of the anaerobic bacteria (growing only in the absence of oxygen) which are normally the cause of putrefaction of animal and vegetable matter. This anaerobic growth is usually accompanied by the production of very foul smelling compounds, and cheeses in which it has taken place are unsaleable. It is possible by appropriate bacteriological methods to isolate small numbers of putrefactive bacteria even from first class cheese which show no sign whatever of abnormality. It is characteristic of these bacteria that they are normally unable to thrive under the acid conditions found in English hard pressed cheese, and although they may be present they do not grow appreciably. Occasionally, however, when for some reason acid production has not proceeded normally and there are sufficient numbers of putrefactive bacteria present in the milk, or when they have been added with rennet which may contain them, they grow and produce foul smelling compounds, and the cheese become "stinkers." It is significant that the appearance of the taint is always delayed and only becomes evident when the decrease in acidity which occurs during ripening has reached a point at which the anaerobic bacteria can grow. Moreover it is always found that affected cheese are much less acid than normal cheese.

BUTTER STARTERS.

The main function of a cheese starter is to produce the necessary acidity, but a butter starter is also required to give flavour and aroma.

A starter usually consists of a mixture of types of streptococci—*Str. cremoris*, *Str. lactis* and *Str. paracitrovorus.*

Str. cremoris and *Str. lactis* are both active acid producers, but yield none or only small quantities of those products of fermentation which are responsible for flavour and aroma.

Str. paracitrovorus growing alone produces only small quantities of acid and grows slowly in milk. But in the presence of the other streptococci it grows fairly rapidly, and by fermentation of the small quantity of citrate in milk, yields substances (notably diacetyl) which give flavour and aroma to the butter churned from cream ripened by mixed starter. This is an example of the effect of one organism on the growth and activities of another which is so common in bacteriology. Another interesting property of the aroma producing streptococci is their great resistance to acid conditions. They may be found alive in old starters in which the great majority of other types are dead and are commonly recovered from this source.

THE METHYLENE BLUE REDUCTASE TEST.

This test in more or less its original form has been in use for many years, and has been successfully used in distinguishing in a general way milk of poor from milk of better quality. But in its original form it was found that it was not possible to make more than the broadest distinctions because many milks which were classified as Class 1 contained large numbers of bacteria.

The old test consisted in adding methylene blue (to give a concentration of 1/300,000), to milk in test tubes kept in a water bath at 38 to 40°C. and noting the time required for the disappearance of the colour. Recently modifications have been introduced and the precision of the test much improved. It was found that the cream in the milk contained in test tubes rose in the ordinary way to the surface and carried with it many of the bacteria and perhaps other substances which play a part in the disappearance of the blue colour.

It has, however, been found that if the test tubes containing the milk/methylene blue mixture are tightly closed with rubber stoppers and creaming prevented by taking the tubes from the water bath, and inverting them at intervals of 30 minutes, the reduction times of milk samples are reduced on the average by about 25% and the relationship between plate counts of milk samples and their reduction times is much closer. It is well known that, owing to the irregular distribution of bacteria in milk, plate counts of bacteria may vary greatly when examinations of the same sample are made by different persons. Further owing to clumping of the organisms and the failure of some to form colonies, it is often found that direct microscopic counts of milk are several times greater than the plate count. In measuring the capacity of milk to reduce methylene blue the activity of all the organisms in the sample is taken into account, and a measure of their probable effect in milk is secured. Moreover the agreement between different persons examining the same sample and between replicate examinations by the same person is excellent. This is a point of real practical importance.

For practical purposes it may be stated that the *reduction time* is a measure of the numbers of bacteria present because their activity quite overpowers the effect of any natural non-bacterial reducing substances present in milk. It has in fact been found in a recent large co-operative experiment embracing a number of observers throughout the country that few samples of milk containing more than 200,000 organisms per 1 ml. as determined by duplicate plate counts on milk agar, retain their colour for more than the standard time of 4½ hours in summer and that few containing less than this number reduce methylene blue in less than 4½ hours. Since judgment should never be passed upon the result of a single examination it is likely that in the few anomalous cases the frequent examination of samples will be an insurance against misjudgment.

In concluding this article it must be emphasised that it has only been possible to deal with a few of the ways in which the science of bacteriology is involved in the problems of the milk and dairy industries. Little has been said, for example, of the very numerous and costly "faults" in milk or manufactured products which are caused by bacteria of many types. Not the least interesting part of the study of bacteria as they affect dairying, lies in the search for the source or "habitat" of a particular type, which may originate in the soil, the water, the food, the air, or even with the cow itself.

SOME REMARKS ON ICE CREAM

By E. E. F. Colam.

Introduction.—In arranging the details for this essay there would appear to be three outstanding reasons why the manufacture of ice cream on a more general scale should be adopted and it is proposed to deal with these reasons before proceeding with remarks of a more technical nature. Briefly they may be stated as :

Firstly, because of its food value to the consumer

Secondly, because of its utilization value in the milk market

Thirdly, because of its profit possibilities.

The Food Value of Ice Cream.—Good ice cream contains the fat and solids of milk, its mineral salts, and it also contains sugar and usually some gelatine and often eggs. In computing the food value of ice cream it must be remembered, that particularly the fat is of great importance, since the calorific value of fat may be put as 9 calories to the gramme as against 4 calories to the gramme of carbohydrates or protein, and since all good ice cream contains additional fat over and above the fat of the milk, it therefore follows that the food value must be greater than that of the milk alone. It is quite often placed as being three times that of milk, but this will of course depend upon the amount of fat and other ingredients in the mix. In addition to the fat in the mix there are also the carbohydrates and protein, as well as the mineral constituents. Sugar being all carbohydrate, and usually being present in ice cream to the extent of 12 to 13 per cent. of the total mix, it will be seen that this contribution to the food value is abundantly present. So far as proteins are concerned, there are both complete proteins and incomplete proteins, and the degree of completeness depends upon the presence of the amino acids in them. Milk and egg protein are considered to be complete, and the high quality, especially of milk protein, makes it very desirable from the dietetic point of view.

The mineral content of ice cream is usually higher than that of ordinary milk, due to the fact that extra milk solids are also added to the mix, and since milk is stated to be richer in phosphorus and calcium than other minerals, it follows that these two will also be found in increased quantities in ice cream. Finally, we must consider the presence of vitamins in ice cream. These may best be described as accessory factors to any food, and have proved of such great importance to good health, growth, and virility, and lack of

Vitamins in Human or Animal diet almost invariably leads to deficiency diseases.

Professor H. H. Sommer in his book "The Theory and Practice of Ice Cream Making," sums up the advantages of ice cream as a food as follows: "Ice cream at retail prices compares favourably with many of our staple foods. The protein of ice cream is complete and is more easily assimilated than most other proteins. The mineral content of ice cream is high and it is an excellent source of vitamins A, BI, E and G. Ice Cream is therefore of considerable value to all classes of consumer and especially invalids and convalescents."

In view of these remarks it is very desirable that the attention of the public should be continually drawn to the food value of good ice cream.

Utilization Value of Ice Cream.—One of the greatest problems of the dairying industry to-day is the balance to be held between milk for the liquid market and that which goes into manufacture, and the varying prices which the different categories command. It is therefore of the utmost importance to the British dairy farmer that every avenue of approach to this problem should be explored.

Now of the various forms of manufacture in which milk can be utilized, there is no product which is capable of paying a higher price and still remaining a very remunerative business, than is the manufacture of good quality ice cream.

When ice cream is made with fresh milk and cream as its main sources of fat, it is obvious that every gallon sold has helped to sell more English milk and cream than if the ice cream was made from a mix which had been re-constituted from Empire or foreign butter and skim milk powder. To quote an example, let us consider the case of an ice cream testing 12.5% fat. With such a recipe as this, approximately 5.75 pints of milk and 2 pints of cream would be required for every gallon of mix, and if the cream was of 50% fat and was obtained from 3.5% milk, then 15 gallons of milk would be required for every gallon of cream. Therefore 2 pints of cream would need 3.75 gallons of milk and thus every gallon of ice cream mix would have accounted for:

$$3.75 \text{ plus } \frac{5.75}{8} \text{ gallons milk}$$

$$\text{or} \quad 4.46 \text{ gallons milk.}$$

Therefore if 100 gallons of ice cream mix were made and sold daily, 446 gallons of fresh milk would be utilized, and working on an average of 100 gallons daily for a season of 20 weeks, the milk utilization would be :

446 x 7 x 20 or 62,440 gallons of milk.

Considering that there are in use to-day freezers capable of producing 300 gallons of ice cream in one hour, it will be seen that the figure of 100 gallons of mix per day is a comparatively small output.

Before leaving the question of the utilization value of ice cream to the dairy industry, it might not be amiss to take a glance at what has been done in America. Sommer gives some very interesting figures. Firstly, it is interesting to note that ice cream holds fourth place in the percentages of total milk production utilized by the various dairy products in the United States. Further to this he shows figures which indicate very clearly the steady increase in ice cream production. In 1909 the total output was 89,000,000 gallons, but by the end of 1930 this figure had increased to 345,714,000.

It is held by those who have been in America that this steady progress has been largely due to competition on a quality basis, which has been greatly assisted by the establishment of legal minimum standards for fat and solids by practically every State. Another feature of importance is the fact that ice cream is a recognised subject at most of the American Agricultural Colleges and these facts, coupled with very vigorous advertising, have resulted in the *per capita* consumption increasing from 1.04 gallons in 1909 to over 3 gallons in 1929.

The Profit Possibilities.—There is no doubt that when ice cream is manufactured on up-to-date lines, and full attention is paid to the usual essentials of good business practice, there are good rewards to be had from this process of dairying.

It is impossible within the limits of this essay to deal with ice cream costs in detail, but it is desirable to give an illustration of a simple costing. Let us for a moment consider the case of an ice cream testing 8% fat. This could be made from such a formula and price as under :

6 Pts. of Milk	@ 1½d. Pt.	6 x 1.5d.	...	9.00d.
1 Pt. of Cream	@ 2/- Pt.	1 x 24d.	...	24.00d.
7 Oz. S.M.P.	@ ¼d. oz.	7 x .25d.	...	1.75d.
23 Oz. Sugar	@ 2½d. lb.	$\frac{2.5 \times 23}{16}$	...	3.50d.
1 Oz. Gelatine	@ 2d. oz.	2	...	2.00d.
				40.25d.

Therefore the total cost of one gallon of mix is 3/4¼. Now an ice cream mix of this analysis should not be taken to more than 60% overrun. Using an ice cream server of size 24 to the quart, we should get 90 portions to the gallon (Feltham). Therefore one gallon of mix taken to 60% overrun will give :

90 plus 54 or 144 portions.

If 1/- is added for making and 20% is allowed for overhead charges (Feltham), the nett profit per gallon of mix, when serving 2d. portions of ice cream will be as under :

144 Portions of Ice Cream @ 2d. portion	£1	4	0
Less Cost of Mix @ 3/4¼, plus 1/-, plus 4/9½		9	1¾
Nett Profit per Gallon	£0	14	10¼

The figures given above are based on certain assumptions. In the first place the estimated number of portions obtained from a gallon of ice cream must be dependent upon the ice cream being in reasonable condition, and not having been taken to an overrun exceeding 60%. It is also essential that care is exercised in serving the ice cream as careless dishing can make a deal of difference. Further to this, allowance must be made, particularly in the case of small plant operators, for variations in the amount of overrun obtained. Nevertheless, even when making such allowances it will be seen that when dealing with a bulk ice cream, very good profits are possible.

The case for packaged ice cream is not so good, as there are of course, the costs of labour, packing and transportation to consider, as well as the class of market in which such a type of ice cream finds its outlet.

One thing however, is very evident, and that is that where two classes of purchasing public are catered for, it can only be done successfully by an adjustment of the qualities of the ice cream sold in relation to the price obtained.

To the dairyman or to the producer retailer, the profit possibilities of ice cream should be particularly attractive, since they offer him at one and the same time, a useful and remunerative solution to his surplus problem, and it may well be that his ice cream activities will rapidly develop into a very important part of his business. In this latter connection the experience of the writer may be of interest. For the first season ice cream was only made in a small hand freezer, but even so, the takings for ice cream amounted to about £75. The next season an automatic cabinet was purchased at a cost of £145, and during the second season just over £300 was taken. Diplomas were gained by the writer and a very nice connection for ice cream was built up on quality and cleanliness as its foundation.

The foregoing paragraphs having briefly dealt with the value of ice cream from the point of view of food value, utilization and profits, it is now proposed to devote the remaining space to remarks of a more constructional nature.

SOME TECHNICALITIES.

Classification of Ice Cream.—Ice cream may be classed under several headings such as follows :

(1) Plain Ice Cream
(2) Fruit and Fruit Flavoured Ice Cream
(3) Nut Ice Cream.
(4) Bisque Ice Cream
(5) Chocolate Ice Cream
(6) Chocolate Coated Ice Cream
(7) Fancy Ice Creams.

So far in this country the plain ice cream and that flavoured with fruit syrups have been the most popular, though in recent seasons there has been a growing popularity for the chocolate-coated ice cream as well as for such flavours as coffee, but the manufacture of ice cream containing nuts or whole fruit has not made the progress experienced in America.

Composition of Ice Cream.—There are five main components of an ice cream mix and they are usually stated as under :

(1) Butter Fat
(2) Serum Solids
(3) Sugar
(4) Stabilizer
(5) Flavouring.

Each of these components plays its own part in the mix and upon the correct blending of them depends the success of the final frozen product.

The Selection and Constitution of Mixes.—It is impossible in the limits of this paper to deal with the subject of ice cream mixes in anything approaching detail. In the selection of an ice cream mix the following points must be observed :

(1) Cost Price of the Mix
(2) Price obtained for the Ice Cream
(3) The Materials most easily available
(4) The Consumer Taste of the District
(5) Method of Distribution, *i.e.*, Bulk or Packaged
(6) Distance over which Transported
(7) Time required to be stored before sold.

Sources of Ingredients.

Butter Fat.—The butter fat in ice cream may be included in the following or a combination of them :

(*a*) Milk
(*b*) Cream
(*c*) Fresh Butter
(*d*) Evaporated Milk
(*e*) Oil of Butter
(*f*) Milk Powder (Full Cream).

Serum Solids.—These are included in the above, but additional amounts are also added to the mix and may be from the following sources :

(1) Condensed Skim Milk
(2) Separated Milk Powder.

Sugar.—There are quite a variety of sugars used in ice cream manufacture and may include :

Cane or Beet Sugar
Maple Sugar
Glucose
Corn Sugar or Corn Syrup
Honey and sometimes Malt Syrup.

Sugars supply a very cheap form of solids to the mix, but their use is limited by the standard of sweetness required in the mix. In this country the limit is about 12 to 13 per cent. of the mix, though apparently it is taken to 15 or 16 per cent. in America.

Stabilizers.—These are of three main kinds, *i.e.*,

(1) Starch Products
(2) Gelatine or Vegetable Gums
(3) Eggs

Their function is to bind together the various ingredients of the mix into a colloid and in the case of gelatine are usually present to the extent of .5% of the mix.

Flavouring.—The flavourings used in ice cream should be of the best possible, as the freezing process tends to diminish flavour quite considerably.

As has already been stated it is impossible to give more detail as to actual composition of mixes, but there are literally hundreds of formulae in the works of such writers as Sommer, Dahle, Feltham and others.

The Balancing of Mixes.—Where ice cream is sold within two or three days of being made there is not so much difficulty attaching to the compounding of the mix as when it is intended to hold the ice cream in store for some time. In the latter case it is of the greatest importance to obtain a correct balance between the various ingredients. This question of storage also affects the type of stabilizer used, since it is practically impossible to store an ice cream containing eggs or starch products as stabilizers for more than two or three days without serious defects arising. Consequently gelatine is most commonly used in ice cream which has to be stored before sale.

In regard to fat, this constituent improves flavour as it increases above 4% and is most desirable at 10 to 12 per cent. (Feltham). It increases overrun up to 10% and it also raises the freezing point of the mix. The fat is of the greatest importance for reasons of palatability, since it is this ingredient which gives the rich, creamy flavour which all good ice cream should have.

Feltham also states the serum solids (milk solids-not-fat) improve the texture of the ice cream up to 10%, but above 12% they produce a very heavy or soggy ice cream.

Sommer states that serum solids improve the texture through mechanical obstruction, replacing water, and lowering the freezing point. The important point to bear in mind is that increasing the total solid content of the mix has definite advantages, because it means that a certain amount of water has been replaced by solid matter, and with less water present in the mix a smoother texture results on account of there being less water to be converted into ice crystals.

For this reason, therefore, serum solids are added to the mix, but care must be taken to see that a correct balance is maintained or the very serious defect known as sandiness will occur if the serum solids are in excess. Sandiness is caused by the formation of lactose crystals and once this defect makes its appearance in ice cream it will very soon become unsaleable.

Good practice arranges for a constant balance as between serum solids and fat, and the table below gives an indication of that balance (Feltham):

Fat %	*Serum Solids %*
Up to 6%	11.2%
6 to 8%	10.8%
9 to 10%	10.5%
11 to 12%	10.0%
12 and over	9.6%

As was stated previously sugar is the cheapest form of solids, but its use must be limited by the sweetness.

Gelatine is very effective in improving texture as well as its stabilizing action and is usually present to the extent of from .3% to .5%.

Increasing the total solids of the mix should not, however, be carried beyond the limit of 40% or the resulting ice cream will be too soggy and therefore not palatable.

The Processing of Ice Cream.—In the case of the small plant operator the business of processing the mix may mean no more than the mixing of an ice cream powder with cold milk and cream, and for ice cream which is going to be sold quickly and is made with milk and cream of high bacterial quality, this method can be perfectly satisfactory. Furthermore such methods are essential where the volume of trade is not sufficient to enable the operator to employ special labour for the operation of the plant.

There is, however, one important point for the small plant operator to bear in mind, and that is, that if he sets out to make an ice cream of very high butter fat content he may encounter such defects as " buttering," causing little hard lumps of frozen fat to appear in the ice cream, or an ice cream of crumbly texture. These defects can only be avoided by homogenization ; therefore if he does not wish to homogenise he must keep the fat percentage down to a lower level, and a limit of about 13% should be enough to avoid this trouble, although placing the mix in the freezer at too high a temperature will also give rise to this defect.

Where the manufacture of ice cream is to be carried out in considerable quantities some regular method of processing is essential. This is so for two reasons, namely :

(1) In order to maintain hygienic standards
(2) To obtain an evenly blended product of consistent quality and texture.

The correct processing may be outlined as follows :

Mixing and Pasteurising.—This is usually done in a vat, built preferably of stainless steel, insulated and jacketed for controlled heat maintenance. This piece of equipment should be fitted with a vertical agitator carrying four blades fixed at the bottom end close to the bottom of the vessel, with another set mounted higher up on the shaft. Such design ensures perfect mixing of the ingredients and if heat is supplied by means of hot water there is less chance of a burnt flavour resulting as when steam is used.

This operation is a very important one as the heat is required for the double purpose of dissolving the ingredients as well as for the destruction of harmful bacteria. Higher temperature of pasteurisation is desirable with ice cream mix owing to its greater density as against milk, and for this reason the mix should be heated to at least 150 degrees F. and held at that level for 30 minutes. Control of this operation is very desirable and mixes containing gelatine must not be taken above 160 degrees F. or an off flavour will result.

Homogenising and Cooling.—Homogenisation is necessary if a product which is uniform as to its physical properties, is to be obtained, and this process breaks up the fat globules with particles of the other ingredients thereby producing a mix of smooth texture.

The temperature of homogenisation should be the same as that of pasteurisation, but the pressures used in this process are dependent upon the fat and serum solid content of the mix, and as these contents rise it is advisable to reduce the pressure.

Rapid cooling of the mix to a temperature as near 40 degrees F. is desirable immediately after pasteurisation and homogenisation, as this will improve the texture, and it is obvious that if the mix is to be aged it is most desirable that it should be kept at a temperature least conducive to multiplication of bacteria. Further it is essential to have the mix at as low a temperature as possible prior to the freezing process. Cooling is carried out by running the mix over a tubular surface cooler. It is also desirable to strain the ice cream mix, and this can be done from the cooler.

Ageing.—There appears to be a certain amount of doubt as to the benefits of ageing the mix, but Sommer gives the following opinion :

" Unaged mixes are likely to fail in attaining the desired overrun.
Ageing decreases the time required to reach 100% overrun.
Ageing increases the maximum overrun obtained.
It is always desirable to age the mix at least 2 hours and preferably 4 hours.
In any case 24 hours is ample."

Freezing the Mix.—This is the most important part of ice cream processing and there is not space here to do more than enumerate the salient points in connection with freezing. Strictly speaking the freezing of ice cream is not completed in the freezer as during the process of hardening further freezing takes place. Freezers are of two main types as under :

(1) BATCH FREEZERS (Horizontal or Vertical), in which a batch of mix is frozen and then drawn, and may be sub-divided as under :

   (*a*) *For Small Plant Operators*, usually consisting of a can suspended vertically in a brine solution. Made in sizes of 1 gallon up to 10 gallons, and fitted with scrapers and sometimes beaters.

   (*b*) *For Larger Plants*, usually horizontal freezers, refrigerated with brine or direct expansion of ammonia, and fitted with dashers, scrapers and expelling vanes. Varying in sizes from 40 quarts up to 120 quarts of finished ice cream.

(2) *Continuous Freezers.*—In this type of freezer a continual flow of mix is supplied to the freeeer and is pumped through the freezing tube under pressure, and at the same time a constant and controlled amount of air is pumped into the mix immediately prior to the freezing. The freezing is instantaneous, and the ice cream flows continually from the delivery side of the machine.

Performance of Freezers.—Much depends upon the refrigeration, which must be adequate. In small vertical freezers the freezing is usually accomplished in 10 to 15 minutes, and in about the same time in horizontal brine freezers. With horizontal direct expansion machines this time is reduced to about 5 minutes, including freezing and whipping. In continuous freezers the freezing and whipping is done in 10 to 15 seconds. They are capable of from 60 to 300 gallons per hour.

The freezing operation must perform two functions as under :

(1) To partially freeze the mix
(2) To bring about the incorporation of air.

In small vertical freezers the mix is frozen and whipped at the same time but in the horizontal type freezers these operations are carried out in two stages. By means of the refrigerant valve it is possible, after running the freezer for two or three minutes, to cut off the supply of refrigerant from the jacket, and then whip the mix up to the required swell. In this way better control is maintained on overrun, and the ice cream does not become too stiff to be drawn or expelled from the freezer.

With the continuous freezer the ice cream issues from the machine in a stiffer condition and may be filled into packages immediately. This is of great advantage as ice cream from horizontal freezers must be drawn first into cans and then poured into filling machines, which double operation results in a rise of temperature and a tendency to bring about crystallisation afterwards when the packages have been hardened.

Overrun.—Overrun in ice cream is the difference between the volume of the finished ice cream and the mix from which it was made. It is necessary for two reasons

(1) On account of its relation to profit
(2) Its effect on body, texture and taste.

With modern freezers overrun may be obtained to very high percentages, running to well over 100%, but good practice now tries to limit the overrun to within the 90%—100% region. If too much overrun is taken the resulting ice cream will be too light and losses will occur in dishing the ice cream and may lead to trouble between the wholesaler and retailer since the latter will experience this loss.

There are definite limits to which overrun should be taken and these are governed largely by the total solid content of the mix. The following table gives a guide as to these limits.

Total Solids.	*Overrun.*
30%	50%
31%	55%
32%	60%
33%	65%
34%	70%
35%	75%
36%	80%
37%	85%
38%	90%
39%	95%

Hardening Ice Cream.—Immediately the ice cream has been frozen and packed it must be placed in the hardening rooms. The temperature of ice cream as it leaves the freezer is about 26—28 degrees F. and if kept longer than one or two hours at that level loss of the air would result. It is therefore necessary to harden quickly in a room at from 0 to minus 10 degrees F. or even lower.

FORTUNA FAVET FORTIBUS.

We have seen that ice cream is a good food, that it can help us in our milk utilization problems, that it is profitable, that machinery and equipment are abundantly available, and that our American Cousins have developed this industry as a part of their general dairying activities.

How can we make use of all these facts to a fuller benefit in this country ?

Once again the answer is threefold :

(1) By Organisation
(2) By Standardisation
(3) By Advertising.

(1) *Organisation.*—The fact that a few large concerns have developed their business along certain lines does not mean that

their methods of operation are necessarily the only way of selling ice cream. It is true that there is the difficulty of the variation in solids-not-fat when using fresh liquid milk in ice cream manufacture, and that ice cream made at a central point and distributed over a large area must be made from a very carefully balanced formula, but this only strengthens the case for manufacture on a more general scale by the small plant operator. There is already abundant evidence that the principle of manufacture at the point of consumption is just as successful as that of wide-spread distribution from a central point of production.

Doubtless great results could be obtained from some organised movement, similar to that of the recent Milk Bar campaign, and this should be applied particularly to the dairy trade, until it becomes a general thing for dairymen to handle ice cream. In the writer's experience the public will readily purchase ice cream from a dairy shop once they realise that it is being sold there. Another very useful medium for ice cream sales is through the milk bars, and their proprietors should be encouraged to make their own ice cream of milk and cream instead of just buying it from the first wholesaler they think of.

More attention should be paid to the development of the delivery of ice cream to houses, hospitals, schools, factories and institutions.

The British dairy farmer already has his Marketing organisation, cannot use be made of this fact to promote organised ice cream manufacture from fresh dairy products ?

(2) *Standardisation.*—One of the first problems which should be tackled by those responsible for such organisation, is the question of standards, and steps should be taken to work for the establishment of legal minimum standards for fat and solids, with a maximum limit for bacteria.

It is true that emulsification enables standards of fat to be reached without the use of fresh cream, but there are, nevertheless large numbers of small ice cream manufacturers who would not resort to that process of fat incorporation, and especially in the case of the dairy trade it would be easier to use fresh cream in ice cream manufacture.

What would be better still if possible would be the establishment of a national mark for ice cream and that this product should be classified under such headings as :

(*a*) Cream Ices
(*b*) Ice Cream
(*c*) Ices
(*d*) Sherbets.

In this way some firm measure of control could be obtained.

(3) *Advertising*—It is useless for those who know and realise the value of ice cream from all aspects, to withhold that knowledge from potential manufacturers and consumers. We must tell the latter what a valuable food it is, and the former how profitable it is to handle. There are thousands of prospective consumers to initiate into its value as a food. Is may be that they have been afraid of taking ice cream on account of its sometimes doubtful origin. It may be that they have not realised that it is of definite food value. Or it may be that they just have not thought about it at all.

Whatever their prejudices, vigorous efforts should be made to overcome them and this can very largely be done by means of judicious publicity. It must, however, be borne in mind that the combination of all three, *i.e.*,

Organisation
Standardisation
Advertisement

is the true way to success in this very profitable, pleasant and useful process of dairying.

NOTES ON REFERENCES.

The remarks contained in this essay are the result of both the practical experience and theoretical knowledge of the writer, who is the holder of three diplomas for ice cream. A number of years' practical experience of clean milk production and distribution have served as a sound basis from which to start, and during that time considerable reading of available works has been carried out.

Special reference has been made in this essay to the undermentioned works, and reference has been made in brackets to them at the time of quoting :

H. H. Sommer : "The Theory and Practice of Ice Cream Making."
L. R. M. Feltham : "The Making of Ice Cream."
C. D. Dahle : "A Manual for Ice Cream Makers."

CONFERENCE AND TOUR IN BELGIUM, 1936

By Captain G. C. Sankey.

When, on the evening of May 30th, the Prince Badouin docked at Ostend, forty members, forming the British Dairy Farmers' Association Conference party, landed on the hospitable shores of Belgium it was made known that this was the first Dairy Conference ever to visit Belgium. The party was welcomed by Mr. P. Wauters, Hon. General Director of the Belgian Ministry of Agriculture, and Mr. E. Hegh, Secretary of the International Dairy Federation.

The names of the Conference Party were :—

Mr. J. H. Ball, Mount Pleasant, Corporation Street, Preston.
†Mr. F. J. Bull, 28, Russell Square, London, W.C.1.
Mr. R. J. Cox, 113, Peters Court, London, W.2.
Mrs. R. J. Cox, 113, Peters Court, London, W.2.
Dr. W. L. Davies, National Institute for Research in Dairying, Shinfield, Reading.
‡Dr. T. J. Drakeley, 69, Rosebery Road, London, N.10.
Mrs. T. J. Drakeley, 69, Rosebery Road, London, N.10.
Miss G. Duncan, Tillycorthie House, Udny Station, Aberdeenshire.
Mr. H. C. Freeth, 65, Westbourne Court, London, W.2.
Mr. G. F. Gosney, Shell Mex House, London, W.C.2.
Mrs. G. F. Gosney, Shell Mex House, London, W.C.2.
Mr. E. Hegh, 63, rue Joseph Bens, Brussels, Belgium.
Mr. W. Higgins, 133, Kilburn Lane, London, W.10.
Mr. W. Higgins, Junr., 133, Kilburn Lane, London, W.10.
Mr. J. Hill, Elswick Grange, Elswick, Kirkham, Lancashire.
Mr. R. Hinton, Manor Farm, Southrop, Lechlade, Glos.
Mr. W. F. Holmes, The Thatched House, Hampton Wick, Middlesex.
Mrs. M. Holmes, The Thatched House, Hampton Wick, Middlesex.
§Mr. R. O. Hubl, 28, Russell Square, London, W.C.1.
Mr. J. H. Johnston, 17, Cumberland Park, Acton, London, W.3.
Mr. D. P. Lockett, Hill Farm, Moreton Wood, Whitchurch, Shropshire.
Mr. J. Nicholson, 10, Great George Street, London, S.W.1.
Mrs. S. Parton, Weston Hall, Crewe.
Mr. F. Read, Tankerton, Styal Road, Wilmslow, Cheshire.
Mrs. F. Read, Tankerton, Styal Road, Wilmslow, Cheshire.
*Capt. G. C. Sankey, Down Lodge, Fairlight, Hastings.
Mr. E. B. Stevenson, The British Oil & Cake Mills, Ltd., Hull.
Mr. A. Sutherland, 93, Hope Street, Glasgow.
Mr. H. Swift, Olympia Works, Durham Street, Scarborough.
Mr. A. Todd, 83, Northcourt Avenue, Reading.
Mrs. A. Todd, 83, Northcourt Avenue, Reading.
Miss I. S. Todd, Nithsdale, Edinburgh Road, Dumfries.
Miss A. I. Turner, Hortons, Cuckfield.
Mr. J. B. Walford, Gresty Green Farm, Crewe.
Mrs. J. B. Walford, Gresty Green Farm, Crewe.
Miss E. Watson, 2, Hill Street, Arbroath.

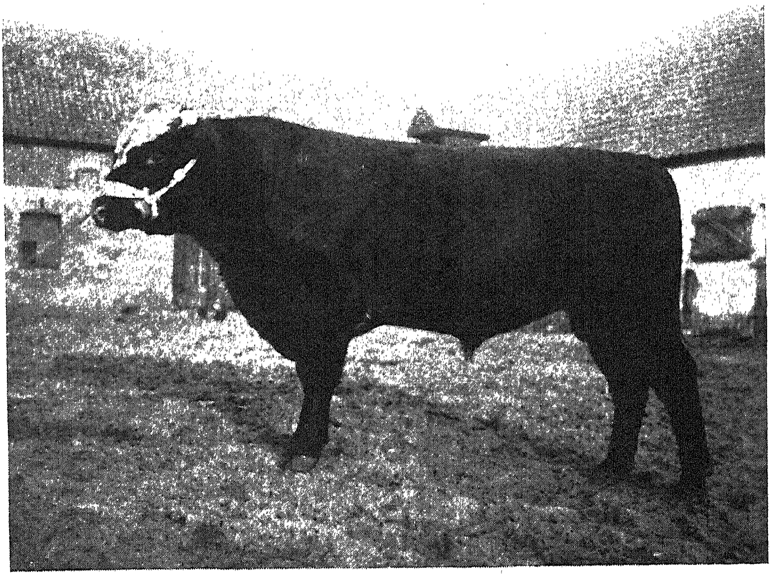
Mr. J. W. Watt, Townhead, Rockcliffe, Carlisle.
Miss B. Watt, Townhead, Rockcliffe, Carlisle.
Miss H. Watt, Townhead, Rockcliffe, Carlisle.
Mr. P. Wauters, 5, rue Hobbema, Brussels, Belgium.
Mr. T. D. Williams, 39, High Road, London, N.2.

* Chairman of Conference Committee. †Secretary.
‡ Consulting Chemist. § Chief Clerk.

Sunday, 31st May.

The first farm to be visited after leaving Ostend was at Wulpen, an aera of low-lying, rich land, reclaimed from the sea. Mr. Wauters and Mr. Hegh introduced the party to Mr. Van Hyfte who welcomed them to his farm. It was learned that the farm consisted of 135 acres, 77 being pasture, 57 arable, and one acre, house and buildings. For cultivating the arable land four draught horses and one tractor were kept. The horses were fine, characteristic specimens of the Belgian breed of some 15 hands, strong and stocky, with short, stout, slightly feathered legs. Colour variable.

The main crops seen growing on the farm were oats, wheat, rye, sugar-beet and flax, all grown in small quantities, here and there, in order to maintain a rotation in cropping, no one field being devoted to a specific crop.



Flemish Red Bull, property of Monsieur Van Hyfte, Wulpen.

Mr. Van Hyfte is the owner of an outstanding herd of pedigree Flemish Red cattle, the most popular breed in that part of Flanders. It was explained that bulls are bred for sale, while the herd is recorded, the calves being ear-marked at the age of 8 days. The herd at the time of the visit included 3 bulls for service. One two-year-old Pedigree Bull, a fine specimen of the breed, had the requisite black nose and tip to tail, and was valued at £75, against the average price for non-pedigree bulls of from £25-£30 ; also 19 dairy cows, 15 heifers, 29 calves and 9 head for fattening were seen on the well-watered pastures. The average milk yield varies from 1,100-1,300 gallons with a resulting butter production of from 440-550 lbs. per head per lactation period.

In the summer the herd received no food beyond that obtained from the pastures, while in winter the average ration of concentrates, it was stated, consisted of:

4½ lbs. Earth nut cake.
4½ lbs. of food containing 30% of albuminoids.
4½ lbs. of crushed Oats or Wheat, Sugar-beet pulp and hay.

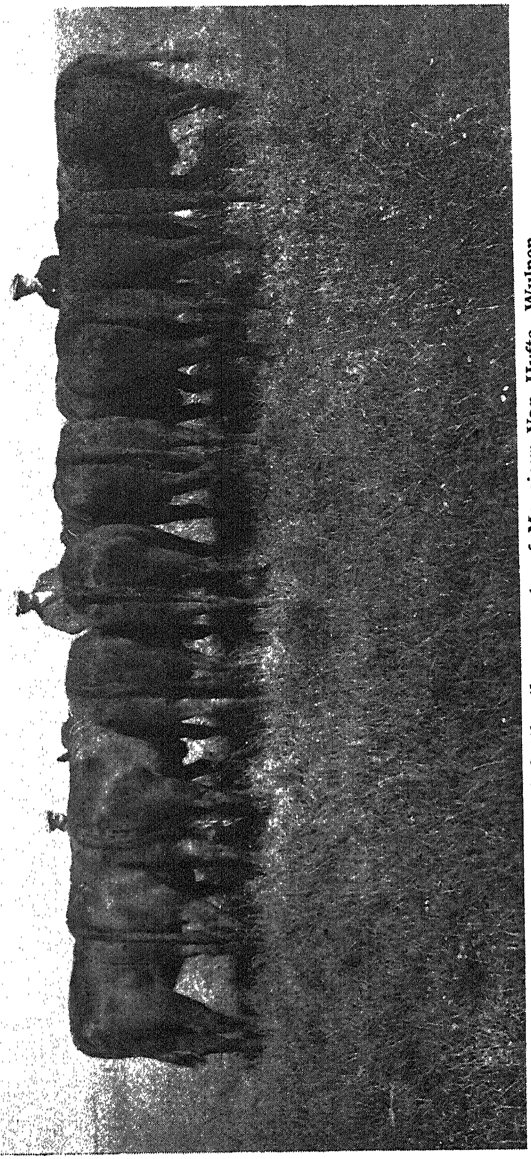
Throughout the winter months, which are severe in the Wulpen area, the cattle are kept in comfortable brick byres.

A large number of white pigs with long hanging ears were inspected ; these were of a selected German breed and are grown for bacon production ; the pigs are housed in concrete pens fitted with automatic feeders.

After taking a cordial farewell of Mr. Van Hyfte, the Conference party journeyed via Pervyse to Dixmude where a halt was made to enable members to ascend the great tower, a Flemish War Memorial, and to see the magnificent panorama of the rich pastures of Veurne-Ambacht.

The journey through the Battlefields was by roads lined on either side with young trees, while here and there could be seen the remains of a tree—the roots of which still lived when the guns ceased firing—which had grown fresh limbs, a tragic veteran amidst their recently planted stately companions.

The fields were all hedgeless, separated from the arable land by wire fences into small enclosures, in which were seen magnificent specimens of the Belgian horse and many foals. Small herds of cattle, varying in type and colour from the all-red and red-and-white of Shorthorn type, to brown-and-white, resembling at a distance the Ayrshire, whilst the black-and-white seen doubtless owed their colour and type to the Friesian. The cattle grazing contentedly in the rich pastures were the offspring of cattle acquired after the war for re-stocking purposes, which accounts for the various types seen.



Flemish Red Cattle, the property of Monsieur Van Hyfte, Wulpen.

It is estimated that when Belgium was invaded some 560,000 head of cattle were confiscated.

Plots of rye were seen in great numbers ; the corn which was in flower, when touched by faint breezes sent clouds of pollen floating on to adjoining plots of wheat, oats, sugar-beet or flax. Here and there large flocks of White Leghorns roamed at will in wire-netted pastures.

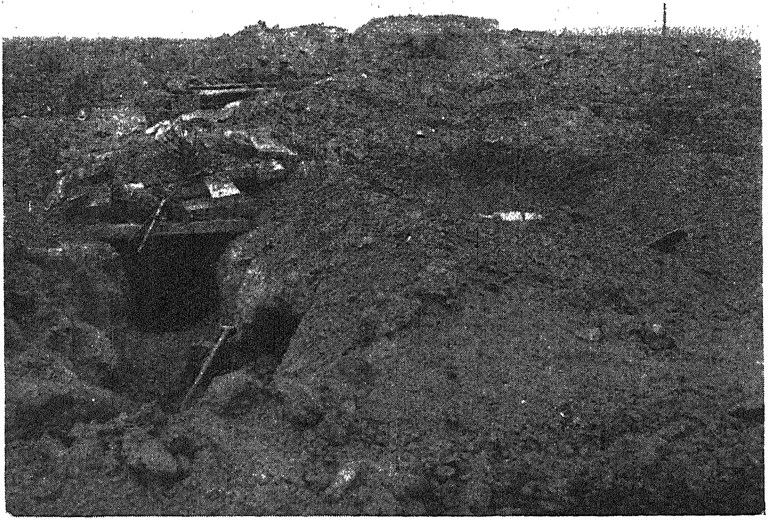
Prior to import restrictions being instituted, Great Britain received vast quantities of Belgian eggs, but owing to the restrictions and the adverse rate of exchange, these could under existing conditions be exported with advantage only to Spain.

Here and there in the re-born, re-stocked fields that form the Ypres Salient are 250,000 graves in 400 Military Cemeteries, of rectangular shape. Above the evergreen hedges that surround each Cemetery rises the tall Cross of Sacrifice : in the centre of each cross is a great bronze sword, point downwards, now green with age, while facing this is the Stone of Remembrance which bears the words, "Their name liveth for evermore." At the head and foot of the graves, each marked with a white marble headstone, are flower borders, gay at the time of the visit with purple violas, the remainder being well cared-for pasture.

In the Ypres Salient, where death and destruction reigned unceasingly for four years, the peasants and their families work from dawn to dusk on their holdings of some five to eight acres, ever thankful and mindful of those who gave them back their heritage.

Mr. M. Simeons, State Agriculturist for the Ypres district, honoured the party by accompanying them on part of their tour of the Battlefields. The crops, rye, sugar-beet, wheat, beans, oats and flax, named in order of popularity, as far as could be seen, gave promise of abundant yields, whilst the pastures were an excellent colour despite the dry weather that had been experienced. In passing it was difficult to detect a weed of any kind, while a poor "plant" did not exist. Every inch of ground was cultivated with skill and care. In the Salient, where once Red Flanders poppies grew in such profusion as to become a symbol of remembrance, only two were seen, but their memory will live for ever perpetuated by poppies made by disabled ex-service men and worn by all on November 11th.

To Mr. Simeons was entrusted the task of bringing the land of the Salient back into cultivation. The levelling and the restoration of the land in the devastated areas of the West Flanders Battlefields was carried out under the direction of the "Service For the Restoration of Lands" (Director, M. L. Boereboom). There were then five



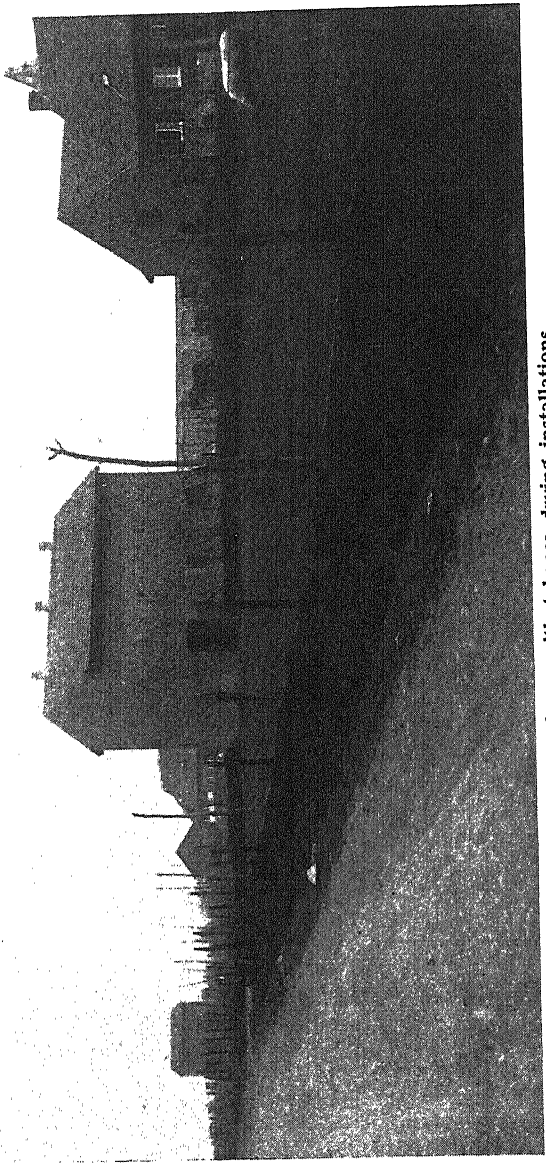
Trench with pill-boxes captured in the Battle of the Menin Road Ridge, 20th September, 1917 (9th Division).

(*Imperial War Museum Photograph, Copyright Reserved*).

(Photo on page 78 is the same area in August, 1936).

State Agriculturists for the devastated areas. The co-operation of Mr. Simeons (Ypres) expedited the restoration of general conditions in every way. The State Agriculturists lived in constant touch with the people who were returning gradually from exile. The work of reconstruction was officially commenced early in 1919, although, prior to that, farmers or their representatives had returned to claim their land. There was no accommodation for them as no house or building remained of the 96 villages that surrounded Ypres, then a tragic heap of ruins, so they slept in dug-outs, pill-boxes, or huts made out of war material. In 1919 a Special Section under the direction of Mr. Simeons prepared the ground, a task that occupied five years and cost on an average £10 per acre.

During this period of reconstruction the peace of the Salient was again broken by the blowing up of obstructions, the hammering of carpenters, the ring of the brick-layer's trowel and the grinding of concrete mixers as churches, roads, villages and new farms rose from the mud and desolation.



Two new farms with tobacco drying installations.

This marvel of reconstruction, so largely due to the skill of Mr. Simeons, has resulted in a countryside of quiet agricultural and village prosperity, where again churches, shops and farmsteads stand where they once stood, and the peasants care for the land they tilled prior to August 1914.

By 1925 all was levelled and put in order for cultivation. The re-populating of the cowsheds and stables was made by the Service of Restitution assisted by gifts received from the Queen of the Belgians, from England, Holland and from Switzerland. In addition, a number of cattle were put out to " keep " during the early periods of re-starting, on an agreed sum per head, or on a share of the produce basis.

During and since the period of reconstruction, large quantities of cattle have been imported from Great Britain, including 100 Lincoln Red Bulls, and Shorthorns presented by the Duke of Portland.

Ypres, the parent town of the district, has been entirely rebuilt, the architecture of the new buildings being as nearly as possible similar to those they replace. On the site of the Menin Gate stands the Memorial of that name, dedicated " To those of the British Armies who stood here from 1914 to 1918 and to those of their dead who have known no grave "—thus reads the inscription on the Memorial Gate, a beautiful arch under which the main road passes. Inscribed on tablets are the ranks and names of 56,000 officers and men who fell in the Salient prior to August 15th, 1917 whose graves are unknown. Before the gate each evening is sounded the Last Post.

Ypres has a British Church and School, and a representative War Museum.

After leaving Ypres the party returned to Ostend, saddened but enlightened, via Mont Kimmel, Hill 60, Hill 62, Paschendale, and Tiny Tot Cemetery, the largest cemetery in Belgium.

Monday, 1st June.

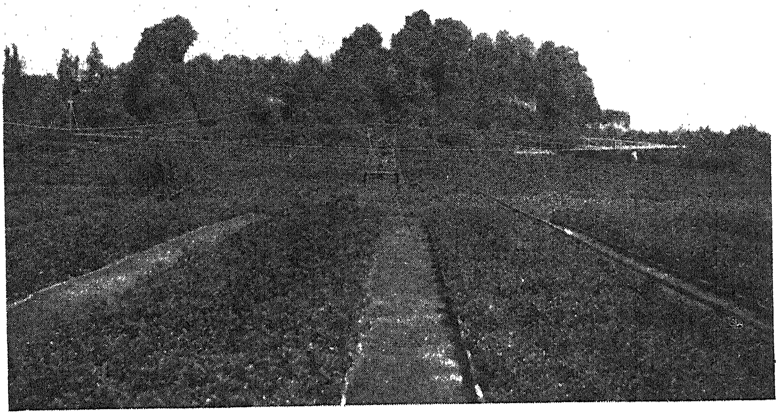
The first two visits of the day were devoted to Horticultural establishments. The Flandria Company was the first to be visited. It was founded in Bruges in 1897, and with more recent interests acquired in Morocco, is the largest of its kind in the world.

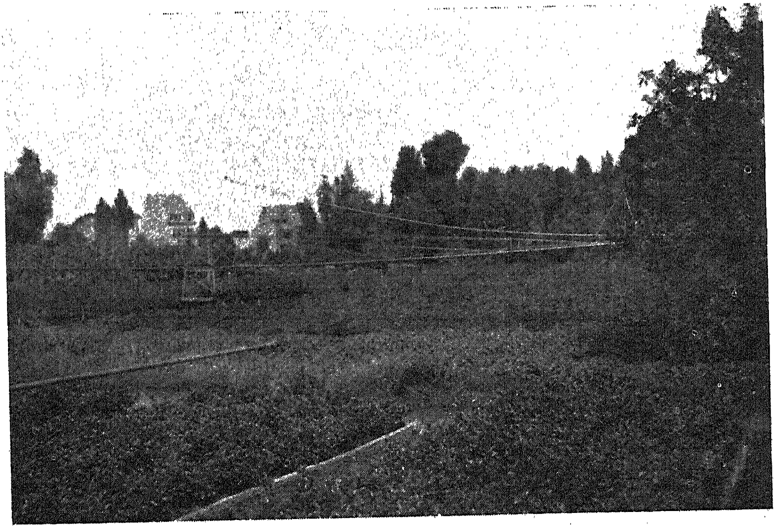
The party visited about 26 acres of glass-houses varying from normal to almost tropical heat, containing about 1½ million palms (Cocos, Kentia, Latania, Phoenix), in an area of over 18 acres ; over 3 acres of green-shaded houses devoted to the production of commercial and rare varieties of orchids, on to other houses containing Billbergia, Nidularium, Vriesea, etc., and then to houses containing various hot-house plants such as the multi-coloured Crotons. The variety and beauty were almost bewildering. The vast acreage of glass-houses was inter-mingled with some 15 acres of land devoted to the cultivation of bay and box trees. In tubs magnificent examples of topiary work were noted, in the many and fanciful shapes of the trees.

The Flandria Company has a nursery of some 60 acres at Sysseele (Belgium) where Araucarias, Azalias, young Bay trees, Rhododendrons, etc., are grown, 13 acres of which are under glass. The Company employs 200 hands and, despite modern and efficient heating apparatus, burns 3,500 tons of coal per annum. The trees and plants are largely exported throughout Europe while the flowers are despatched almost daily by air and other transport.

On leaving Bruges, the party journeyed to the ancient city of Ghent, the capital of the province of East Flanders, where places of interest were visited prior to lunch at Restaurant " Raadskelder." Here a wedding party shared part of the underground dining room, and proved to be a source of some amusement. After lunch a short visit was paid to the Hartmann Horticultural establishment at Mont St. Amand, Ghent, founded in 1897 by Mr. J. P. Hartmann on a field of 1¼ acres, which at that time was devoted to potatoes. On this site were erected six small greenhouses and one wintering house, which Mr. Hartmann managed with the aid of one worker. The Nurseries now consist of about 25 acres on which have been erected dwelling houses, about 100 glasshouses, 4 large wintering houses, which also serve as packing sheds and shelter during the winter months for the less hardy plants. An electric station belonging to the establishment furnishes electric light to all buildings, gardens, dwelling houses, etc., while an electric motor pumps water to a height of 65 ft to three reservoirs, each holding about 4,000 gallons. A new method of watering known as " artificial rain " is in use on the part of the establishment devoted to the cultivation of Azalias. A machine moves on rails and irrigates a width of about 131 feet, and an area of about 16,130 square feet an hour. The water is led to the machine from a tower 46 feet high. A hose, 82 feet long, is placed at one end of the machine, the other one on a tap situated 82 feet from the machine, so that the latter can move 164 feet without the hose being displaced.

The system of distribution is very simple and effective. Pressure from the tower forces the water through the two main pipes in the machine into two bow-formed ones, which are automatically rotated by the pressure of the water. The watering is done in two





Artificial Rain Machine.

circles which together cover a width of about 131 feet. The whole machine itself is slowly moved on the rails by a wheelwork actioned by the rotating of the two bow-formed water pipes.

Of recent years the cultivation of Hydrangeas has been specialised in at these nurseries, and a large export trade has been developed. Palms of various kinds as well as Orchids, Gloxinias, etc., are grown in large quantities.

The Research Institute for the improvement of plants at Melle—a few miles from Ghent—was next visited. This station was founded in 1932 and is one of two attached to the Ghent Agricultural Institute ; the other was founded in 1930 and is devoted to rural economics and (1) the technical study of the production and preservation of green forage and grasses, (2) advice concerning suitability of farms for pasture.

On behalf of the Ghent Agricultural Institute, Professor Smeyers, Director of the Experimental Farm of the State Agricultural Institute, Melle, welcomed the party, and also introduced to them his son and members of the staff and Mr. Berlanger, the Farm Manager.

The farm extends to some 150 acres and is a mixed one equipped with ample modernized buildings ; roughly about one-third is pasture, the remainder being devoted to experimental plots and cereal crops. The dairy herd, once a noted one, is in the process of being built up following a severe outbreak of foot and mouth disease some years ago. The policy of slaughter adopted in this country owing to its island nature, is non-effective in Belgium whose frontiers adjoin countries where the disease is prevalent. In the case of an outbreak, it is the practice for the infected animals to be isolated and treated, about one-third recovering, while movement restrictions within a given area are imposed.

Eight exceptionally fine horses called for the admiration of all present ; they were of the stocky type of the country, and were in exceptionally fine condition. Sixteen breeding sows of the German breed are kept on the farm, it being considered that this is the most suitable type for converting into bacon.

The work in progress at the Plant Breeding Section was demonstrated by Mr. R. Goovaert and Mr. N. Slaats, Assistants to Professor En-Van Godtsenhoven. It was explained that the object of the Station is the selection of foliage plant life, particularly grasses and clovers. The varieties at present under selection are Lolium Perenne (Perennial Rye Grass), Festuca pratensis (Meadow fescue), Dactylis glomerata (Cocksfoot), Phleum pratense (Catstail or Timothy), Trifolium repens (White or Dutch Clover), Trifolium pratense (Red or Broad Clover).

Since 1933 trials on nationalities and auto-fertilisation of the above have been in operation. It is interesting to note that over a period of 3 years cocksfoot has survived drought conditions better than other grasses.

At the conclusion of a very interesting tour of the farm the party was entertained in the farmhouse to tea, where the Chairman warmly thanked all those who had devoted their bank holiday to affording the members of the Conference Party such an instructive and enjoyable afternoon. The flying of the Union Jack from the peak of the farmhouse in honour of the visit was only one instance of the thoughtfulness and kindness displayed. Mr. and Mrs. Berlanger must have spent many hours turning out the contents of their rooms in order to accommodate the party. A link with England had been forged when Professor Smeyers intimated that he had farmed near Colchester for 5 years, an experience he enjoyed apart from the vagaries of the heavy land he had had to contend with. After a cordial farewell the party left for Brussels.

Tuesday, 2nd June.

The first visit of the day was to La Nutricia, Ltd., founded in 1898, the first scientific dairy to be established in Belgium.

From a modest beginning and with prudent management, a great increase in material, and improvement in technique had followed, so that at the present moment, La Nutricia is the most important scientific dairy society in the country.

For many years research carried out by the La Nutricia laboratories was devoted towards the production of a feeding material suitable for healthy and sick foster children, and the brilliant results obtained by the feeding bottle and humanised milk, as well as by its Babatyrose (condensed buttermilk) has attracted the attention of the Belgian medical profession and has been responsible for increasing sales.

As a result of continued research into new processes, La Nutricia has attained its objective and now successfully presents products of importance, notably the Nutricia Yoghourt of which two preparations have met with great success: Yoghourt from Bulgarian ferments, and Yoghourt from selected ferments of which the sale has attained to more than one million bottles per year.

The output of milk in summer is 40,000 litres and 25,000 litres in winter.

Sterilised homogenised milk is sold not only throughout Belgium, but also in the Belgian Congo where it is the most popular milk.

In addition to the special foods for infants and adults, diet bread for diabetes, pharmaceutical specialities, etc., it is interesting to mention that La Nutricia possessed a model cowshed for the production of tubercle-free milk. This building is remarkable in that it has brown-tiled gutters and cocoanut fibre mats resting on slatted wooden platforms for the animals to lie upon. The mats are frequently changed and cleansed, but are said to last in service for two years or more. The standings are of white tiles, while the windows are of blue glass, which is much in evidence in Belgium as a deterrent to flies. The milk is produced by the frequently tested cows which are introduced to this palatial cowshed when in milk, remain there until dry, when they are disposed of. The tails of the cows are never allowed to hang naturally, the tip being tied to a horn by a thin piece of cord. The milk produced by these cows under perfectly hygienic conditions is suitable for consumption in the raw state by the smallest child. The model herd so palatially housed is run at a loss but serves as useful propaganda when displayed to customers, and has also been the means of obtaining the co-operation of the medical profession.

Mr. C. H. Clément, Director of the Nutricia Dairy, invited the party to sample the many excellent and varied specialities they had seen in the course of preparation ; this they did and left after thanking Mr. Clément and his son-in-law most sincerely for their kindness and hospitality.

It was in some trepidation that members of the party approached the Women's Institute for Agriculture and Domestic Economy at Laeken, north of Brussels, but their fears were soon put at rest by the kind reception afforded them by Mr. and Mrs. Lindermans, the Principal and his wife. The Laeken Institute was inaugurated in 1919 by the Minister of Agriculture, M. le Baron Ruzette, and was formally opened by the late Queen of the Belgians on the 19th of July, 1921.

The object of the Institute is to train girls, who may enter at 16 years of age, either as teachers in rural areas, or to instruct them in various things they should know, to perfect themselves as farmers' wives in the future. The fee payable by Belgian girls is 300 francs (about £5) per annum, while food is extra. The fees for those of other nationalities, which comprise some 20 per cent. of the total, is 3,000 francs per annum. The duration of a course is 3 years. The methodical study of economic household work (habitation, dress, feeding) and agricultural work (agriculture, veterinary science, dairying and horticulture, poultry-keeping, etc.), is dealt with during the first two years. The programme for the first year includes in addition, psychology, chemistry, physics, botany, zoology, bacteriology, human anatomy and physiology. That of the second year extends to the applications of these sciences (teaching and methodology), the chemistry of foodstuffs, technology, general and infant hygiene. The third year is mainly concerned with the training of the teacher, with individual work applied to the farm of the Institute, and to personal researches and studies (experiments and investigations).

The whole of the cleaning and other domestic work of the school is done by the pupils. The cooking is done one day by gas, the next by electricity and the next by coal, and so on in order to give the girls experience in each method. The land attached to the school extends to some 15 acres, but at the moment some of it is still occupied by the buildings of the Brussels International Exhibition. The live-stock consists of 10 cows, 2 horses, a number of poultry, pigeons, rabbits and a fair-sized piggery.

After thanking Mr. and Mrs. Lindermans for so kindly showing the school and explaining the curriculum, the party returned to Brussels for lunch.

Tuesday, 2nd June.

After lunch the Conference Party left for the Institute of Animal Husbandry and Veterinary Science at Lovenjoul via Louvain, where a visit was paid to the new University Library built to the plan of an American called Mr. Whitney Warren, to replace the famous old library that was burnt during the war. The country passed through in the 25 mile drive was mostly unfenced, except where horse and cattle grazed, and was devoted to cereals. These gave promise of a bumper harvest due to the excellence of cultivation.

The Institute, the Research Station of the University of Louvain, comprises a series of buildings constructed in the rich area of " The Grand Lovenjoul " near the gates of Louvain. It was erected in 1929 as a result of the generosity of S. G. Mgr. Van Recken, General Director of the " Society of the Sisters of Charity."

Professor Dr. A. Molhant, the distinguished scientist and author of many reports of far-reaching importance, welcomed the party to the Centre of which he has been director since its foundation.

The object of the Centre is to pursue the scientific study of the factors of environment, that is to say, the organic and inorganic conditions of life.

Modern biological studies have shown that the development and the reactions of an individual depend on the inter-action of two series of factors ; the first are represented by the organisation of the germinal protoplasm, the second by all the other conditions. The first is designated heredity and the second, environment.

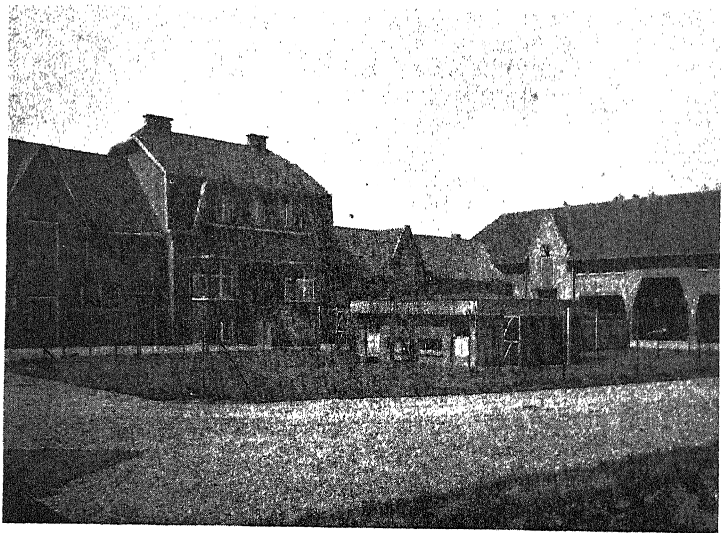
The Centre of Lovenjoul studies environment and includes feeding and external conditons, and the influence of variations of these on the development and other manifestations of existence.

The work undertaken by the Zootechnical Centre is not solely concerned with abstract researches without practical application. The studies of the factors of environment and the investigation of their influence on the variation of the hereditary formula of the individuals permit precision in the actual methods for the improvement of domestic animals, and lead to the conception of new methods.

The Zootechnical Centre is organised to undertake the critical work involved by experimentation to determine whether innovations are profitable or not and to verify the exact value of new methods recommended by research workers of other countries.

In addition, the Centre contributes to the technical training of students who follow their Zootechnical courses at the Agricultural Institute of the University. It is for them a school of application where they may control by actual practice the theories learned during the course.

The Zootechnical Centre comprises of a series of buildings arranged in the form of a " U," a wall with a gate in the centre closes the extremities of the " U " and this encloses a vast court.



Zootechnical Centre Buildings.

In the middle of the horizontal branch of the "U" facing the entrance, is the central block. This building includes as a basement the dairy and a room for cream storage ; one the level of the court there are the rooms for the personnel and for the heating apparatus.

The laboratories occupy the whole length of the rear façade ; these are available to students who devote themselves to special tasks, and serve in the preparation and operation of work undertaken by the Centre. On the first floor there are a library and a lecture room, also rooms for the assistants and boarders.

On the left of the centre block is the cowshed arranged in two parallel lines for stalling and feeding the animals, so that the individual feeding of the animals is assured. On the right of the central building are the byres for young stock. These comprise three compartments, the centre one being reserved for calves, the two others respectively for weaned animals of one year ; and animals of one to two years of age. There is also an abattoir and a hospital. The Centre has also installations for the salting and smoking of meat. It is thus possible to pursue, right to the end, the influence of the factors of environment. In addition, the Centre has a vast poultry house able to accommodate a thousand laying birds, and provides all the necessary equipment for the individual study of poultry husbandry.

The left vertical branch of the "U" is occupied entirely by piggeries which provide accommodation for about a hundred animals. A large paddock runs along the façade behind the piggeries and leads to pastures reserved for mature sows and young pigs. Some four years ago Large White boars were purchased from the herds of Messrs. J. Chivers & Sons, Mr. Lewis and Mr. J. Pierpont Morgan, in order to improve the herd, and have proved so successful that further animals are to be imported from England in the near future.

The right vertical branch of the "U" comprises successively, a barn, stables, wagon-lodge, and porters' house.

A stretch of water running across the property allows for study of the breeding and improvement of ducks and geese. Time is devoted at the Centre to the study in the breeding of small laboratory animals (rats, mice, guinea-pigs, etc.).

The Zootechnical Centre at Lovenjoul actually possesses 6 horses, 65 head of horn stock, 150 pigs, 600 fowls, 250 ducks and 50 geese, etc. The farm produce is sent to the State Mental Home which is run in conjunction with the Centre of which it forms part of the same estate.

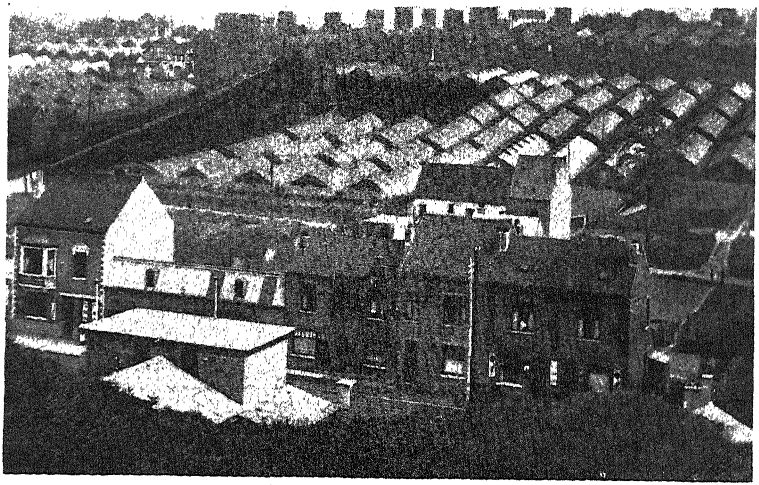
Professor Molhant stated that experiments in the treatment of mastitis had shown that an injection into the udder of a solution of one gram of entozon, a derivative of acridine, in 1,200 c.c. of water, had given good results.

A magnificent bull, bred at the Centre and of the typical "Belgium Blue" breed, the type being encouraged in that part of the country, was greatly admired before the party left.

After thanking Professor Molhant for his lucid explanations of the aims and objects of the Institute and for showing them round the farm, the party left for Brussels.

Wednesday, 3rd June.

The first visit of the day was to Hoeylaert to see the commercial cultivation of the vine under glass. This was started by Mr. Felix Sohie who constructed the first glass-houses at Hoeylaert in 1865. This special type of cultivation grew slowly at first, but later with great rapidity so that the number of glass-houses has now risen to 32,000, which, according to a mathematician in the Party, if placed end to end would stretch a distance of 400 miles. Most of the glass-houses are situated in the vine growing area, which is found about 9½ miles from Brussels to the east of the Forest of Soignes.



Hoeylaert Glass-houses.
Hoeylaert—Serren van den Kastel dreel
Serres de la drève du Château.

With the exception of one nursery of 300 glass-houses and two with 280 and 160 glass-houses, there are few concerns with more than a hundred houses. The average establishment possesses 10 to 20 glass-houses—these are essentially family concerns.

One part of the crop is exported, principally to Great Britain, but owing to recent financial difficulties, exports have been falling, while consumption in Belgium has been on the increase.

The value of the Vine production per annum is :—

Year	*Export*	*Home Consumption*
1927	48,000,000 francs	12,000,000 francs.
1930	60,000,000 ,,	40,000,000 ,, .

In 1935 the export fell to 29,000,000 francs representing about 3,900,000 lbs. of grapes. The total production is about 19,800,000 lbs., so that now only one-fifth is exported and four-fifths sold at home. The fall in exports is attributed to world depressions and also to the customs duty of 3d. per English lb. which the British Government imposed on hot-house grapes in 1932.

By an ingenious combination of forced and retarded cultivation the Belgian grower is able to produce grapes all the year round. This is a remarkable feat, as previously it was only possible to produce grapes during 9 months of the year. Since 1927, owing to the arrival of grapes grown in the open air of the southern hemispheres, the value of this all-the-year-round production has practically disappeared.

Mr. Herkins, who has charge of the experimental station, explained that in order to fight against growing competition, the Belgium vine-growers were forced on the one hand to reduce their prices, and on the other hand, to improve the quality of their products. With this in view they had created a selection station and requested the Government to institute an official control on the ripeness of grapes. At this station new varieties were originated and tested.

Mr. Askin, one of the largest growers, conducted the party to his holding where he has 104 houses devoted to the production of three varieties of grapes—Colmar, Royal (both black) and the most popular variety, Muscat of Alexandria. The average yield from one house of black grapes, according to the variety and age of the vine, ranges between 650 to 800 lbs., while in the case of green grapes, it is 500 to 600 lbs.

After the Chairman had thanked Messrs. Matt, Herkins and Askin and remarked on the excellence of the grapes, which each member of the Party had sampled, a start was made for Gembloux, via the Forest of Soignes.

Before reaching Gembloux a halt was made at Villers la Ville where lunch was taken in the precincts of the remains of the Cistercian Abbey.

The Order was founded in the 12th century by St. Bernard while preaching in favour of the Crusades. The Monastery was started by Charles de Seyne, Head of the Order. Villers was sacked after the French Revolution, and the Order broken up, the property being confiscated by the State. It is interesting to note that the monks lived a comparatively comfortable life, being well endowed, and after completing the Church in 1267, a Brewery was erected and completed in 1271.

Gembloux is situated in the heart of some of the most fertile country in Belgium, where the fields are much larger than those seen in Flanders. In passing it could be seen that the crops looked well, but not as clean as those on the small-holdings seen on the previous days of the tour. Many acres of sugar-beet are grown around Gembloux where a sugar-beet factory has been erected.

On arrival at the State Agricultural Institute the party was welcomed by the Director, Professor Huyge, who delegated the task of showing the party round to Mr. G. Crabus, the librarian, who spoke fluent English.

By royal decree the State Agricultural Institute at Gembloux was founded in the magnificent buildings of an old Benedictine Abbey reconstructed during the latter half of the 18th century. The courtyard of and roads leading to the Abbey are planted with trees, many over 100 years old. At one end of the courtyard is a War Memorial dedicated to past students who fell in the Great War, designed by the father of one of the pupils who was killed.

The Institute has developed rapidly and is now a model of its kind, numerous rooms and extensive gardens having been gradually adapted to its special needs. Abundant material for instructional purposes was seen in the well-equipped laboratories, the magnificent library containing over 30,000 volumes, the etomological collections, the botanical garden, arboretum and collection of agricultural machinery of many types, housed in a huge building adjoining one of the lecture halls. Time did not permit of a visit being paid to the experimental and demonstration farm in the immediate neighbourhood of the Institute. In recent years the State Agricultural Institute for research work has been created, and has acquired a high scientific reputation.

Since the establishment of the Institute, the duration of the course has been fixed at three years for the diploma of " Ingenieur Agricole." The rapid advance of agricultural science with the need for special knowledge in definite branches has lead to additions being made to the syllabus.

With the academic year of 1934-35 was commenced a scheme in accordance with the Royal Decree of 31st October, 1934 of which the fundamental enactments may be summarised as follows: Students admitted to the first year of studies must possess a certificate (corresponding in this country to that of a good Secondary School), or a certificate of equal merit enumerated in the Royal Decree. The instruction comprises of three courses; the first two years leads to the degree of "Candidat Ingénieur Agronome" (Bachelor of Agriculture); the second is also of two years and leads to the degree of "Ingénieur Agronome" (Doctor of Agriculture) or "Ingénieur Chemiste Agricole" (Doctor of Agricultural Chemistry); the third course is of one year's duration and leads to specialised degrees such as "Ingénieur des Eaux et Forets" (Doctor of Forestry and Water), "Ingénieur Agronome Colonial" (Doctor of Colonial Agriculture); "Ingénieur Horticole" (Doctor of Horticulture); "Ingénieur du Genie Rural" (Doctor of Rural Engineering); and "Ingénieur des Industries Agricoles" (Doctor of Agricultural Industries).

In addition to the above legal grades, there is a three years' course of training in Science.

On the occasion of the visit the Research Institute was divided into six Stations concerned with (1) Plant diseases, (2) Entomology, pestology, micology, (3) Dairying, (4) Rural engineering and farm implements, (5) Forestry, fisheries and water supplies, (6) Plant breeding.

The State Dairy Research Station was founded to undertake researches of interest in connection with the improvement of the dairy industry; to instruct the public on all matters of a scientific and technical nature, and to advise the Administration of the measures to be taken in the interest of the dairy industry as a whole.

The services of public interest are as follows:—

1.—*Information Service.* Written or verbal questions may be addressed to the Station regarding the dairy industry, such as, those regarding the production of milk, milk processing, butter and cheese-making, utilisation of by-products, faults in manufacture, plans, estimates, and specifications, etc., while visits may be made.

2.—*Test Service.* The Station will undertake on request any tests on machines, apparatus, instruments or processes to determine their real practical value.

3.—*Ferments Service.* The Station offers various ferments selected by the establishment, such as pure cultures of lactic ferments for the ripening of cream, various pure ferment cultures for the ensilage of green foodstuffs; pure ferment cultures for Yoghourt, etc.

It is interesting to note that the Station has discovered and made popular an economic method whereby Yoghourt may be prepared in households. Since 1921 the Station has carried out analyses for the Official Control of Belgian Butter ; this control is optional and only applies to factory butter, but is under the patronage of the Government. The production of controlled butter is constantly increasing and in 1935 exceeded 18,400,000 lbs.

Of recent years the Station has been engaged on an important study of the ensilage of green food-stuffs in Belgium, and has shown that the extension of the ensilage process is well founded and will allow for a reduction in the cost of milk production. The Dairy Station is at present preparing to undertake work in connection with cheese production. An experimental cheese factory is in the course of erection. The tests will be directed towards the creation of a cheese of hard texture of an original type which it was learnt, will be obtained by a new process, more economic than the usual methods.

In view of the fact that the Ministry of Agriculture recently placed an embargo on the importation of certain plants from France and Belgium (modified as regards certain plants as from 1st October, 1936) owing to the prevalence of the Colorado Beetle (which reached France a few years ago and spread to Belgium last year for the first time). It was interesting to learn that 1 kg. of arsenate of lead to 100 litres of water spray had been found effective, as had dusting with calcium arsenate, for destroying this pest. Further experiments in this connection are still in progress.

On reaching Brussels after the interesting afternoon spent at the State Agricultural Institute, it was with very real and sincere regret that the party took leave of Mr. P. Wauters, whose various duties and engagements would not allow him to accompany the Conference on the rest of its tour. Mr. Wauters' ability as a guide and interpreter, and his many kindnesses will long be remembered by all members of the Conference Party.

Thursday, 4th June.

The day broke with every promise of rain which soon became a stern reality and grew worse as the day proceeded, but was brightened by the arrival of Mr. Hegh, together with his wife and daughter-in-law, to join the party for the remainder of the tour.

The first part of the route was the same as that when returning from Gembloux the previous evening but when the area of the Ardennes was approached the country became more wooded, while the general appearance of the farms adjoining the road was indifferent compared with those in the Flanders area.

On arrival at Rochefort the party left the auto-cars for a light railway, a tram-like affair, that, once the crew had been assembled, jolted at a dignified pace for four miles through fields and woods on a track of many gradients until it arrived at the " Grotto of Han." Hopes ran high as the entrance was reached ; surely it would be dry within, and had not the Guide-book promised many a thrill ? It read ; " Admission 35 fr. per person, including electric light and search-light, cannon-shot and embarkation." There was some speculation as to which port one would embark for after the cannon-shot, but this proved to be nothing more drastic than a feeble " bang " followed by choking acrid fumes ; the fumes rather spoilt the effect of the echo which was partially drowned by choking gasps.

The party, strung out for the most in single file, traversed the beautiful galleries at a sharp pace led by the oldest lady member of the party, who made her way along the muddy paths without difficulty, dodging the large drops of moisture that fell from the roof with almost uncanny precision, only to stop in a remarkable clearing where wine of " port type " was on sale. After a brief halt—the approach to and the time in the grotto having taken far longer than expected—the party faced the " cannon-shot " without undue alarm to enter the rather waterlogged boats to traverse the 205 yards that separated them from light, fresh air and rain. The Grotto will long be remembered as will the welcome sight of the auto-cars ready waiting to convey the party to lunch at Hotel Biron at Rochefort, where lilac filled the windows.

After lunch the journey of some 75 miles to Orval was commenced. The drive was through well-wooded country and the roads at times were lined with fruit trees that gave way to glimpses of wire-fenced pastures populated in the main by black and white cattle, while here and there a small hop garden was seen studded with poles of great length, no wirework was noted.

For a distance the route lay near the French border until Orval, in the Belgian province of Luxemburg, was reached.

The Monastery of Orval stood throughout the centuries, until in 1793 the French Revolutionary troops destroyed it, but in 1926 material and spiritual restoration was undertaken and is progressing actively and satisfactorily.

The manual work of the monks is mainly agricultural and they have succeeded in establishing a small cheese factory within the Monastery. Each day a lorry collects some 440 gallons of milk from surrounding villages ; this is curded at 40 deg. ; the curd placed in cylindrical moulds each holding about 3 lbs. and pressed for several hours; it is then removed to the cellars where the exterior of the cheese is salted and frequently washed with a special brine. After three weeks the cheese is ripe enough for consumption. In addition to this type of cheese a kind of "Port du Salut" is made. A few months ago the manufacture of another type of cheese—the "Super gruyere National"—was commenced. In this case the milk is raised to a temperature of 55 deg. for two hours; the curd is then pressed into a cylindrical mould for several hours and placed in brine for two days, then stored for many months before being sold for eating. All the products produced by the monks are sold in the country.

Due to the unexpected time spent at the Grotto of Han it was becoming dark when Virton, a small town some half an hour's drive from Orval, was reached, where the St. Joseph Co-operative Butter Factory was visited. The party was welcomed by the Director of the factory and its associated organisations, Mr. Ernest Adam, Member of the Belgian Parliament and President of the National Union of Belgian Dairies. Mr. Adam was accompanied by his wife, his sister-in-law, Mrs. Albert Adam, an English lady from Leeds, who filled the rôle of interpreter, and Mr. Louette, the resident engineer. A tour was made of the excellent and well-designed factory where the employees had been retained in order that up-to-date machinery and organisation might be seen in operation, a gesture greatly appreciated by all present.

The St. Joseph Factory has some four thousand members who send their milk to the 135 collecting depôts situated over a wide area. At the depôt two samples of the milk are taken, one being retained by the farm, the other is sent to Virton for testing for butter fat as payment is made according to the fat content. Twenty lorries collect the cream from the various depôts, where the milk is separated, the separated milk being collected by the farmer when he brings a fresh consignment of whole milk.

At the Factory eight women receiving 2s. per day are employed as well as twelve men. During 1935 about 1½ million pounds of butter were manufactured, the bulk of it being sold in the locality and the surplus exported to the Belgian Congo. The price obtained for the butter varies according to the supply and demand, but a fair average is 1s. 1d. per lb. In addition to the manufacture of butter, the Society has at 100 of its collecting depôts, general shops for the sale of groceries, etc. to the public. Members receive a 6% discount on purchases made. Manures and foodstuffs are also sold to farmers, while trade includes both buying from, and selling to the Belgian Congo. An advisory service is available for members who care to avail themselves of the facilities offered.

The Society has a piggery where some 200 pigs can be accommodated ; these are cared for by one man who receives just under 5s. per day for this work together with a free residence, light and garden. The pigs are of the German Breed type.

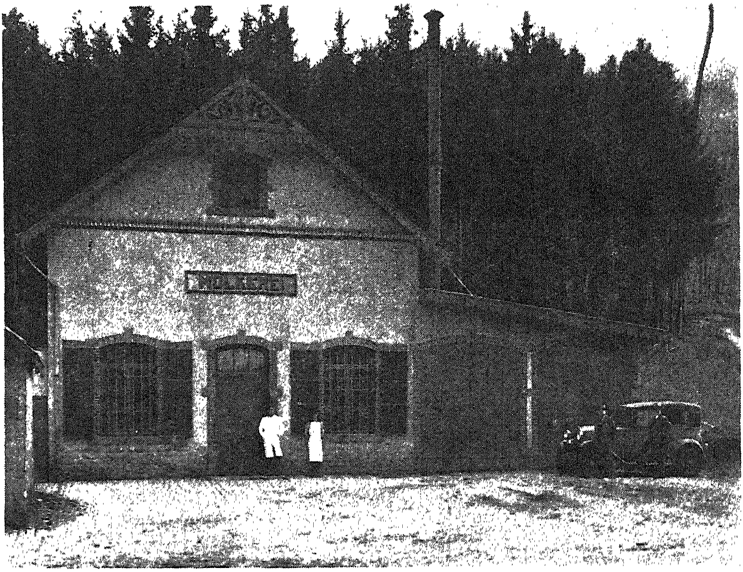
A very cordial farewell was taken of Mr. Adam, his wife, and sister-in-law prior to leaving for Hotel Kons, Luxemburg, which was reached about 10 p.m.

Friday, 5th June.

It was raining when a start was made from the Hotel for a drive around Luxemburg before visiting the "Celula" Co-operative Dairy. Here Mr. Collart received the party accompanied by Dr. F. Grosbusch, Delegate for Luxemburg on the Permanent Bureau of the International Dairy Federation. Dr. Grosbusch is also Director of the Agricultural School, State Agricultural Station, and State Dairy Station at Ettelbruck. Under the expert guidance of these distinguished gentlemen a tour was made of the dairy. The milk was received in five gallon churns collected from the farms by lorry. The farms are very small and in many cases carry only two or three cows. On arrival, each churn of milk is tested for acidity by a quick alcohol test, and samples taken for fat tests on the result of which the farmers are paid. The factory was originally built for a milk depôt and butter factory, but owing to increased milk becoming available, cheese is now also manufactured. About 18,500 litres of milk are received daily ; of this about 7,500 litres are bottled and sold in the district, after being pasteurised. About 5½ cwt. of butter is made daily at the factory ; the milk for this purpose is first heated, then separated, the cream being ripened by a culture. The butter seen was of very good texture and flavour, and sells at 1d. per lb. above the general average price.

The machinery was very modern, mostly of German manufacture, the Westphalia separators being fitted with an anti-froth attachment. The interest of the Party centred on a peculiar sour milk cheese made from partly separated and whole milk. The milk is coagulated by acidity, heated in a large round copper vat and the resulting curd when cooked is placed in a strainer and allowed to drain until quite dry. The curd is then put through a mincing machine and made up in small packages and is sold as "Kochkase."

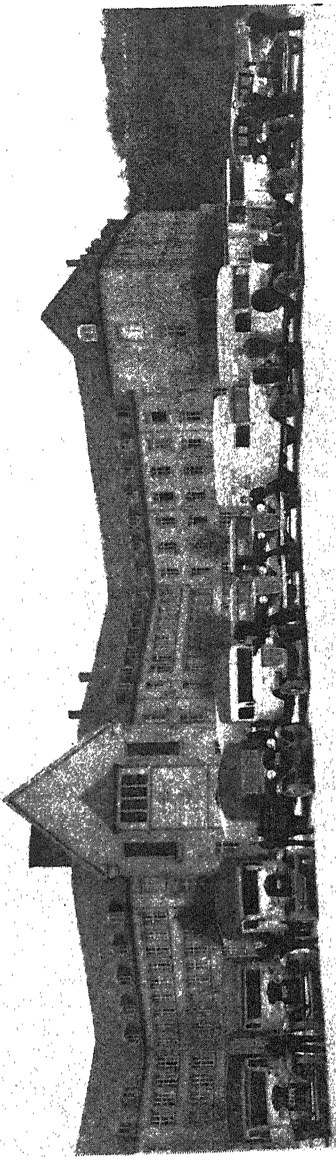
The drive from Bettemburg to Mullerthal, occupying some three hours in heavy rain, did not prove of great interest from an agricultural viewpoint. In the Moselle Valley vineyards flourish on such steep banks, that at first sight it would appear impossible to cultivate them, but a closer inspection showed that the steepest had been terraced. During the drive some very beautiful country was seen, wooded and undulating and not very thickly poulated. After long stretches of flat roads it was a pleasant change to pass through hilly stretches bounded in places by rocks and forests. The pastures seen on the journey appeared to be good, bad and indifferent, while the cattle seemed to favour the Friesian.



Luxemburg Dairy Depot.

After lunching at Mullerthal the route lay through a district popularly named "Miniature Switzerland" which proved very beautiful, but the snow-topped mountains and stretches of wild flowers seen around Grindelwald during the Conference held in 1935 in Switzerland were missing. After passing through the Valley of the Sure and Diekirch, Ettelbruck was reached about 3.30 p.m.

At Ettelbruck in 1931 the Agricultural Establishment of the Grand Duchy of Luxemburg was erected. This proved to be a magnificent building capable of accommodating 150 students whose ages vary between 16 and 20 years. The curriculum embraces a winter agricultural course, senior agricultural courses, and various agricultural courses designed to meet special requirements.



Luxemburg Agricultural School.

The State Agricultural Station is attached to the Agricultural School, its special mission being to enlighten farmers in the Grand Duchy on the composition of foods for milk production and scientific rationing of dairy cattle ; in addition, seeds are tested for germination and freedom from weeds, while a number of samples of water are subjected to chemical analyses. That the farmers take full advantage of the facilities offered may be judged from the fact that during the year 1934-5 some 70,000 samples of milk were tested and 2,000 samples of basic slag. About half the Luxembourgeoise Dairies have their condensed milk samples analysed for fat content.

In one of the beautifully equipped laboratories, apparatus for differentiating between bread made with a mixture of rye and wheat flour, and pure wheat flour was demonstrated.

After according a very hearty vote of thanks to Dr. Grosbursch for the pleasure they had derived from his company on part of the Tour, and also from his interesting explanations, the party left to continue the journey to Stavelot. The direct route was not taken in order that the beauties of the Ur valley might be seen. The districts passed through appeared to be very well wooded. In one village both sides of the road, the pavements, and front gardens of the houses, were piled high with wood. Two men with a motor saw were kept busy satisfying the demands of the villagers to cut up their winter fuel supply into the required lengths.

The picturesque old town of Stavelot was reached about 7 p.m. where the night was spent at Hotel Orange. It still rained.

Saturday, 6th June.

The morning was fair and bright when the antique, picturesque Hotel Orange was left for transport waiting to open the last official day of the tour by conveying members to Offermans Wholesale Dairy, Stavelot. Offermans Dairy Society of Liege erected the factory at Stavelot chiefly to play the rôle of a regulating station for very variable supplies. The production of milk in districts covered by the Dairy Society varies by more than 100% of the lowest yield. The function of the Stavelot factory is to work up the excess milk during periods of abundance ; this enables the Society to make contracts accepting the entire production of the farms in their district. The average price paid for milk, after deducting transport charges, is 4½d.—4¾d. per gallon ; the retail price for milk in bottles sold in Liege is at the rate of 10d. per gallon.

Mr. Boscheron, O.B.E., Managing Director of Offermans Wholesale Dairy, Ltd. welcomed the party and conducted them around the premises which is equipped with a complete, up-to-date plant, handling at the time of the visit some 4,000 gallons daily, but capable of receiving and treating 13,200 gallons daily.

The milk is collected at the farms by the Society's lorries in small churns holding four to six gallons each. Composite samples of milk are taken daily and tested at the end of each week, the price paid being based on the quality basis which accounts for a variation of about ¼d. per gallon. Part of the milk is sterilized for home and colonial use. The sterilizing plant is very modern, all the milk being passed through a Gaulin homogeniser before heating in the bottles. Both whole and separated milk are dried by either of two processes, roller or spray. Whole milk is usually dried during the summer, and separated milk during the winter, both of which are consumed in Belgium and the Congo.

A certain amount of butter is made, but the output is dependent on the call of other departments. The butter produced is of a very high quality, excellent in flavour and texture, and is either distributed in tubs of about 1 cwt. capacity, or in 2 lb. blocks that have passed through a moulding and wrapping machine. The butter is made from cream ripened by Belgian cultures supplied from the State Agricultural Laboratory and renewed fortnightly. Danish combined churns and butterworkers are used.

A certain quantity of dried buttermilk is sold and this is used with very good results for poultry feeding. Full cream and dried skimmed milks, entirely soluble by the Krause system, and full cream and skimmed dried milks non-soluble by the Hatmacher process, are manufactured.

The journey from Stavelot through the Ambleve Valley to the quaint town of Theux was one of charm and beauty, and the glorious sunshine after the heavy rains added to its natural attractiveness. On arrival at Theux the party proceeded to Franchimont, which is practically one with Theux and paid a visit to the Franchimont Butter Factory, officially known as "Beurrerie du Pays de Franchimont," Société Co-opérative Thieux-lez-Spa, where an introduction was made to the Manager, Mr. Emonts, by Mr. Boscheron, who with one or two members had accompanied the party in his own car.

The Franchimont Butter Factory was founded in 1932 under a co-operative scheme and met with instant success and support. At the outset the membership comprised 200 farmers with about 2,000 cows, but now 440 farmers are affiliated and represent a lease of some 4,500 cows.

In 1935 the butter manufactured exceeded 550,000 lbs., in 1934, 715,000 lbs., while in 1935 a total of 814,000 lbs. was made.

This year (1936) it is anticipated that the manufacture is likely to reach 935,000 lbs.

The cream is collected daily by three lorries from the houses of members, each house being visited three times a week in winter and daily during the summer months. On arrival at the dairy, the cream is pasteurised, cooled, and ripened by means of starters. This system results in the production from fresh cream of a butter of good keeping quality and high standard. After thanking Mr. Emonts, the party left via Spa, the oldest watering place in Europe, situated 820 feet above sea level, where a brief halt was made, for Liege.

After lunching at Liege, Remicourt was reached after an hour's drive, where a visit was paid to the Melotte Factory. Mr. De Mot, Managing Director, and Mr. Henrard, Works Director, welcomed the party and conducted them, in two sections, around the factory.

The factory was founded in 1852 and was originally engaged in the manufacture of various kinds of agricultural machinery. In 1888 Mr. Jules Melotte, son of the founder, invented the separator with a suspended turbine ; this met with such instant favour that a year later the manufacture of all machinery other than separators ceased.

It was stated that the factory supplies about 80% of the separators sold in Belgium, and exports an important part of its output, notably to Britain and her Dominions, United States of America, France, Germany, Holland, Austria, etc.

The party were shown the entire process of manufacture and assembling, as the Directors of the factory consider that to secure the best guarantee of regularity in production, it is essential to manufacture every part of the machines at the factory where even the moulds for the castings are made, as well as all other parts, with the exception of specialised accessories, such as pieces of rubber, etc.

The factory at Remicourt specialises in manufacturing separators for farmers and small dairies with a capacity varying from 10 to 270 gallons per hour. All the separators are constructed on the principle of having a suspended bowl which unites the advantages of simple mechanical arrangements with a perfect equilibrium of the turbine and smooth action.

This year (1936) the company has put on the market a new model separator in which the predominating factor is the use of stainless steel. In the new separator all parts of the machine coming into contact with the milk are made of this material. The innovation contributes considerably to the ease of maintenance of the new models, and assures them of a long life. A means for automatically greasing and a new arrangement of the bowl which ensures separation of the very highest degree has also been incorporated.

One department of the factory is devoted to the checking by a special staff of the measurements of all parts. One apparatus seen, it was stated, detected a variation of one-7,600th of an inch.

It was learnt that since 1932 the Melotte factory has constructed a combined churn and butter worker that has proved very popular ; in 1932 the number of the machines sold in Belgium was 44 while in 1935 the sales reached 592.

After being entertained most hospitably by the management, and presented with an ash tray as a memento of the visit, the visitors, through their Chairman, thanked Mr. De Mot and Mr. Henrard for allowing them to visit the factory and see the manufacture of separators that some of those present knew from experience gave excellent results.

On arrival in Brussels, on behalf of the Conference members, the Chairman placed a wreath on the tomb of the Unknown Belgian Soldier, after which the members filed slowly past the memorial, where a light for ever burns. The following note appeared in " La Nation Belge " for the 9th of June, 1936 :—

> A LA TOMBE DU SOLDAT INCONNU.
>
> Quarante membres de la British Dairy Farmers' Association sont actuellement en voyage d'etudes agricoles en Belgique.
>
> Samedi soir, sous la conduite de leur president le capitaine G. C. Sankey, ils se sont rendue a la Tombe du Soldat Inconnu et y ont depose une magnifique gerbe de fleurs portant l'inscription " In remembrance, 1914-1918. British Dairy Farmers' Association Dairy Conference, 1936."

The Conference concluded with a farewell dinner at which Mr. E. Hegh was the Guest of Honour. It was sincerely regretted that Mr. P. Wauters, who had done so much for the members, was unable to attend. The toast-list was :—

" The King "	Captain G. C. Sankey
" The British Dairy Farmers' Association "	*Proposed by* Mr. H. Swift
	Reply by Dr. T. J. Drakeley
" The Chairman "	*Proposed by* Mr. J. W. Watt
	Seconded by Mr. W. F. Holmes
	Captain G. C. Sankey responded
" The Ladies "...	*Proposed by* Mr. G. F. Gosney
	Reply by Mrs. T. J. Drakeley
" The Conference "	*Proposed by* Mr. T. D. Williams
	Reply by Mr. Alex. Todd

Mr. E. Hegh was asked to speak, and stated that he was honoured to be called on, but he regretted his inability to think in French, translate into English and then to speak fluently in English, and he would therefore like to submit a written statement (which is appended below :—

" Mr. Chairman, Ladies and Gentlemen, I was greatly interested to hear the speeches so full of good heart and humour which your members made to congratulate the leaders of the Dairy Conference and Excursions in Belgium. It gave me a good idea of the cordiality in the British Dairy Farmers' Association, but when, at the end, I was asked to speak I could do no more than say a very few words in poor English. Had I known I was to speak I should have been prepared, and I greatly welcome this opportunity of addressing you.

" Everyone in Belgium was honoured to show the Agriculture and Dairying of our little country, not only my dear friend, M. Wauters, but also the other leading people whom you have met during your excursions. M. Smeyers, at the farm near Ghent ; M. Clement of the Nutricia Dairy, Brussels ; M. Molhant of the Zootechnical Centre, Louvain ; M. Huyge at the State Dairy Experimental Station, Gembloux ; M. Adam at the St. Joseph Co-operative Butter Factory, Virton ; M. Boscheron at Offerman's Wholesale Dairy, Stavelot ; M. Emonts at the Butter Factory, Theux ; M. De Mot at the Melotte Establishment, Remicourt—all very active members of the (Belgian) Société Nationale de Laiterie, which is under the presidency of the honourable M. Maenhaut, also President of the International Dairy Federation.

" The Société Nationale de Laiterie has not a large membership, but is actively engaged in the study of scientific, technical and economic problems concerning the Belgian Dairy Industry. Although the membership is small, the members are influential and work most effectively for the benefit of dairying.

" In 1903, the Society organised in Brussels, the first International Dairy Congress, at which was inaugurated the International Dairy Federation.

" It is the first time that we have been called upon to arrange a Dairy tour in Belgium, but it was a pleasure to do so for our old friends from England, whose agriculture may be compared with that of my own country. Unfortunately, like all initial experiments, some mistakes were made. We had certainly forgotten to make suitable arrangements with the meteorological station to favour us with good weather. For this I can offer no excuse, as the station is situated near my home at Uccle.

" However, the route of the tour has been a long one which must have given you the impression we had stretched our little country; you have been called upon to eat much chicken, this however, is due to the restriction of the egg exports to England and the necessity to kill our hens; you have long trips in Grottos as an exercise on leaving the autocars; you have seen the lady at the hotel weep, because you ordered 40 baths and the railway would not deliver them after seven o'clock in the evening; you have revenged yourselves by buying all her antique furniture—we hope you have enjoyed yourselves and apologise for any defects in our arrangements.

"Now, ladies and gentlemen, I wish to say how greatly my heart was touched by the noble way in which you paid your tribute and homage to the Unknown Belgian Soldier who fought for home and country and who now reposes at the foot of the Column, symbolic of Belgium's independence. We regard the splendid wreath of flowers deposited there as a heartfelt expression of your sympathy.

"From mediaeval times, my little country has maintained very friendly relations with your great country. When War broke out in 1914, and we were invaded, our thoughts turned to our natural ally. In August and September, 1914, the Belgian sea coast was crowded with people who relied on the protection of the British Fleet. We fled to seek comfort in the welcoming arms of England, and we shall never forget."

The proceedings concluded with presentations by Miss B. Watt, and Mr. F. Read, on behalf of the members to Mrs. T. J. Drakeley, who was celebrating a birthday, Captain G. C. Sankey, Mr. F. J. Bull, Mr. R. O. Hubl, who all tendered their grateful thanks and appreciation.

CONCLUSION.

Little over a week is all too short a time in such an hospitable Country as Belgium proved to be, to gain more than a superficial knowledge of the agricultural situation. The foregoing report, in which technical details have been avoided as far as possible, gives some idea of the importance the State attaches to agricultural education and research. The indomitable will and love of country of the peasants may be gauged by the brief account of the repatriation of the devastated areas—a task which might well have broken man's heart.

The co-operation existing, as it must do if success is to be achieved in a country where the agricultural population in the main consists of small-holders, is shown by the activities of the various co-operative societies.

It is upon these lines that a sound Agriculture has been built up in Belgium.

RECORDS OF TYPE, SIZE AND PRODUCTION OF REPRESENTATIVE ANIMALS AT THE LONDON DAIRY SHOW, 1936

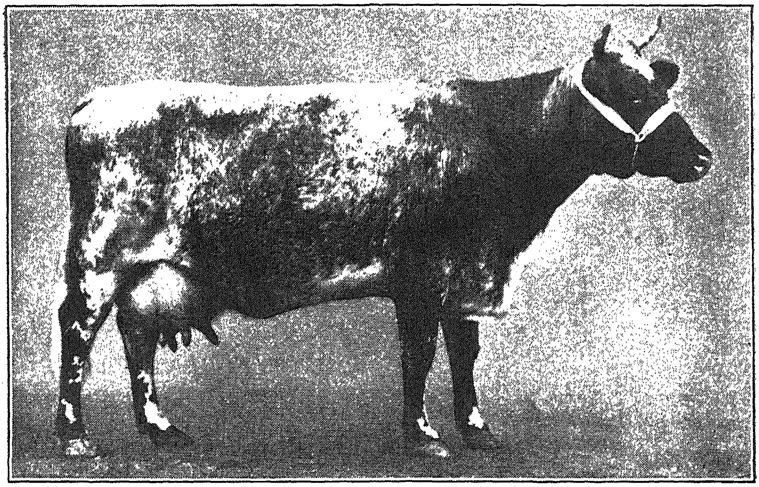
By

SIR J. Q. LAMB, M.P., S. BARTLETT, M.C., B.SC., and W. F. JESSOP.

At the London Dairy Show, 1928, a set of records was collected, comprising photographs, measurements and records of production of the first prizewinners in each of the mature cow classes. Those records, together with the principal objects and methods of taking the photographs, measurements, etc., were published in this Journal, Vol. XLI., pp. 123 to 148. Subsequently the same procedure has been adopted at each London Dairy Show and the records published yearly.

The following pages show photographs, measurements and all available records of production of 20 animals of 11 different breeds.

In addition to the records published here the Association preserves the information in a rather more complete and permanent form in albums prepared each year. These albums contain two original photographs (right and left side), together with records of identification, breeding, production and size.



"STEPPINGLEY CLOVER'S GIFT 4TH." Catalogue number 10.

Exhibited in Class 1 (for Pedigree Dairy Shorthorn Cow, born on or previous to August 1st, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 28th September, 1927. Age when photographed 9 years 1 month.

Prizes won at the London Dairy Show, 1936:—First Milking Trial, Reserve for Desborough Cup.

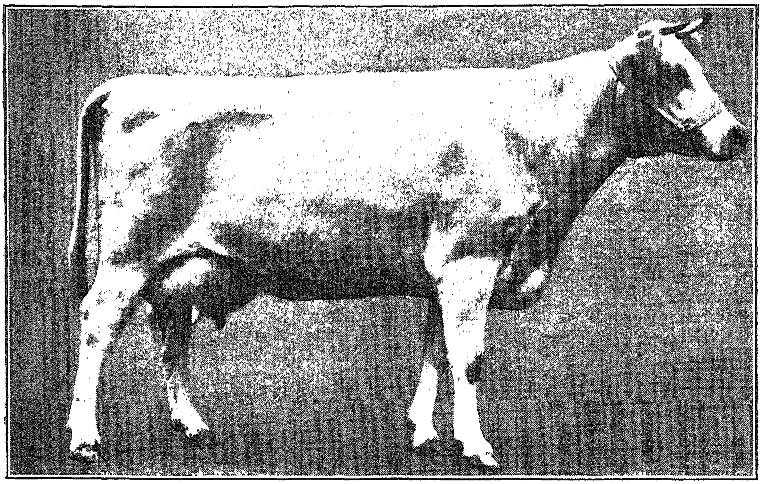
Owners and Breeders, Messrs. A. Brittain and Son, Townsend Farm, Steppingley, Bedford.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	27 Apr., 1931 ...	4	324	49	9,662¾	Not	tested.	
2	9 May, 1932 ...	4	316	116	12,553¼		do.	
3	19 July, 1933 ...	5	308	60	10,967½		do.	
4	27 July, 1934	22	296	91	9,029		do.	
5	9 Sept. 1935	9	250	90	12,938		do.	
*6	23 Aug., 1936	8	—	—	—	—	—	—

*Record incomplete for 6th lactation.



"FAIR FOGGATHORPE." Catalogue number 14.

Exhibited in Class 1 (for Pedigree Dairy Shorthorn Cow, born on or previous to August 1st, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 6th December, 1930. Age when photographed 5 years 10 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Reserve for Calvert Challenge Cup.

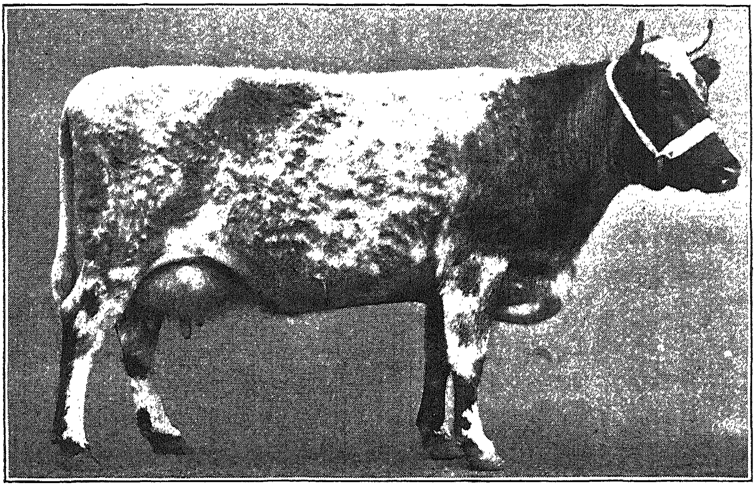
Owner and Breeder, John Crowe, Esq., Ashe Manor, Overton, Hants.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	3 Apr., 1933 ...	4	408	114	7,529¾	—	—	—
2	11 Sept., 1934 ...	4	258	120	9,599¾	6	3.57	343
3	28 Sept., 1935 ...	5	327	30	12,786½	7	4.00	511
*4	24 Sept., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 4th lactation.



" BETTY." Catalogue number 59.

Exhibited in Class 4 (for Non-Pedigree Dairy Shorthorn Cow).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 1931. Age when photographed 5 years.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Third Milking Trial, Extra Prize of Shorthorn Society.

Owner, W. H. Nelson, Esq., Glasson Dock, Lancaster.

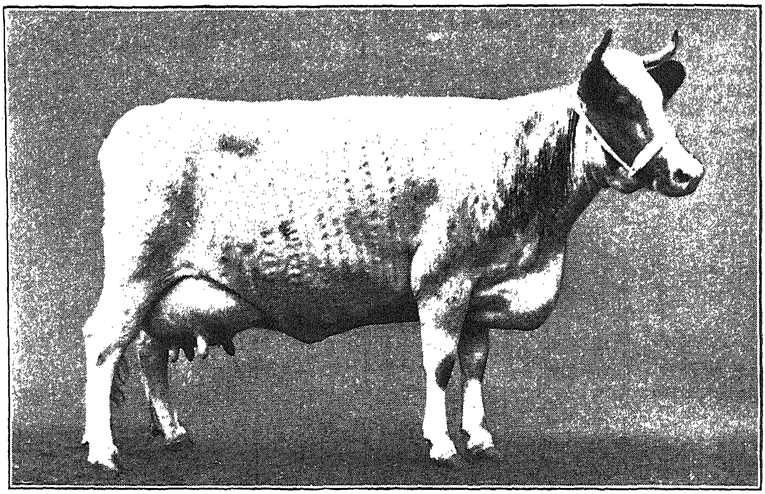
Breeder, Mr. Cleasby.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average per-centage.	Lactation yield of Fat.
					lbs.			lbs.
1	Unknown ...	—	—	—	—	—	—	—
2	6 Sept., 1935 ...	4	280	111	8,149¾	—	—	—
*3	5 Oct., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 3rd lactation.



" LODGE SNOWDROP." Catalogue number 60.

Exhibited in Class 4 (for Non-Pedigree Dairy Shorthorn Cow).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born, unknown. Age when photographed, unknown.

Prizes won at the London Dairy Show, 1936 :—Third Inspection, Extra Inspection, First Milking Trial.

Owner, J. W. Shirley, Esq., Bletchley, Bucks.

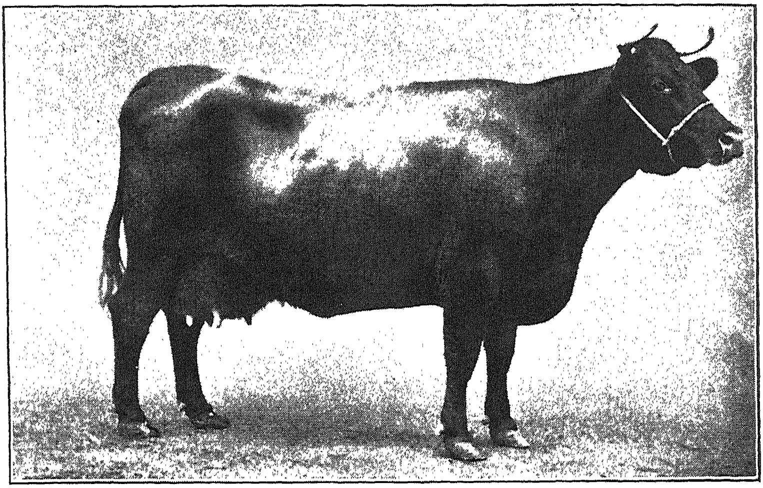
Breeder, unknown.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	Unknown ...	—	—	—	—	—	—	—
2	Unknown ...	—	—	—	—	—	—	—
3	Unknown ...	—	—	—	—	—	—	—
4	25 Oct., 1935 ...	5	255	75	12,113¾	—	—	—
*5	24 Sept., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 5th lactation.



" HISTON ACACIA 5TH." Catalogue number 77.

Exhibited in Class 6 (for Lincoln Red Shorthorn Cow).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 20th October, 1930. Age when photographed 6 years.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Extra Inspection, First Milking Trial, First Butter Test, Supreme Individual Championship Challenge Trophy, Spencer Challenge Cup.

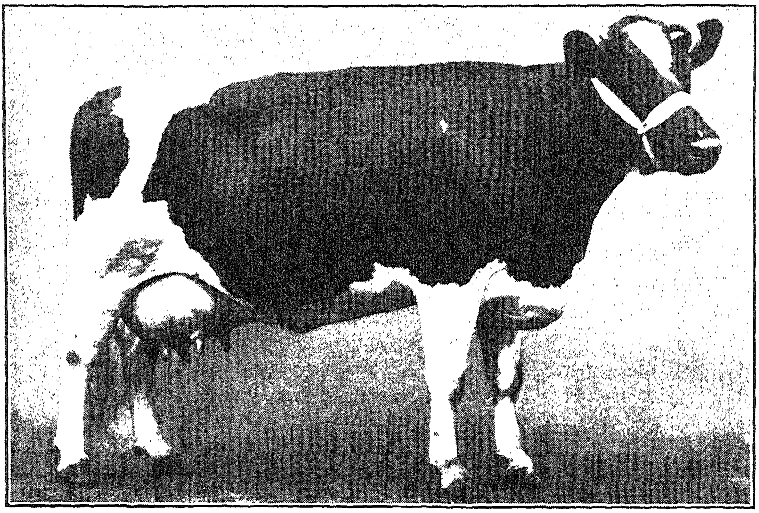
Owners and Breeders, Messrs. Chivers and Sons, Ltd., Histon, Cambridge.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	19 Feb., 1933 ...	4	337	99	10,285¾	7	3.77	388
2	7 May, 1934 ...	4	394	134	12,389¾	7	3.66	453
3	21 Oct., 1935 ...	4	274	66	13,054¼	6	3.94	514
*4	29 Sept., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 4th lactation.



“ TERLING BREEZE 34TH.” Catalogue number 99.

Exhibited in Class 8 (for British Friesian Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 21st February, 1929. Age when photographed 7 years 8 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Extra Inspection, One of group winning Thornton Challenge Cup.

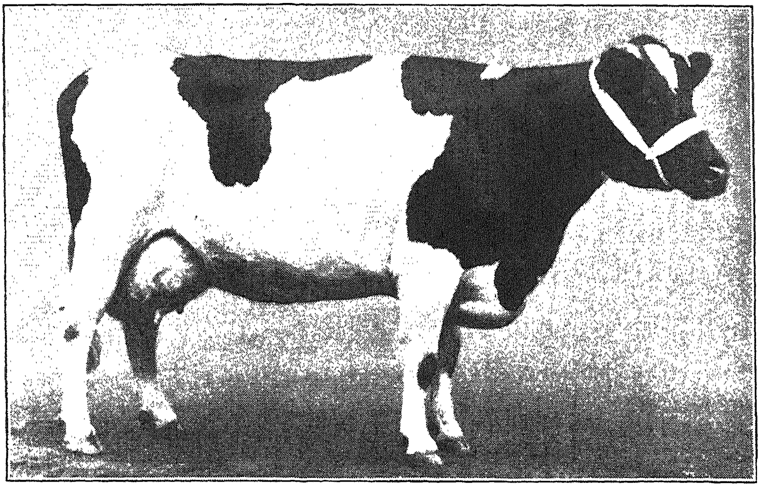
Owners and Breeders, Lord Rayleigh's Farms, Hatfield Peverel, Chalmsford.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	9 Oct., 1931 ...	4	474	90	13,315	9	3.42	455
2	30 Apr., 1933 ...	4	311	71	13,646	4	3.61	493
3	21 May, 1934 ...	4	310	53	16,122¼	5	3.16	509
4	23 May, 1935 ...	4	397	91	22,590	9	3.11	703
*5	26 Sept., 1936 ...	4	—	—	—	—	—	—

*Record incomplete for 5th lactation.



" TERLING CONTENTED 26TH." Catalogue number 101.

Exhibited in Classs 8 (for British Friesian Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 27th October, 1928. Age when photographed 8 years.

Prizes won at the London Dairy Show, 1936 :—First Milking Trial, Second Butter Test, Barham Challenge Cup, One of group winning Thornton Challenge Cup, Reserve Shirley Challenge Cup.

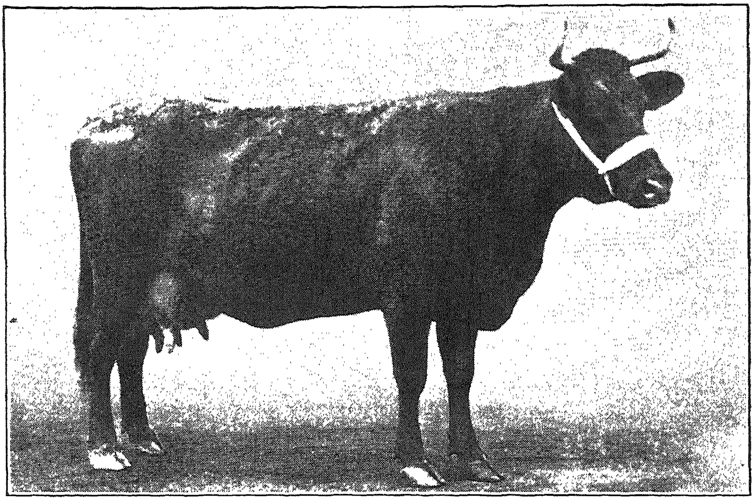
Owners and Breeders, Lord Rayleigh's Farms, Hatfield Peverel, Chelmsford.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	22 Oct., 1931 ...	4	503	64	13,910	11	3.86	537
2	15 May, 1933 ...	4	349	59	15,646	8	3.46	541
3	1 July, 1934 ...	4	346	21	13,006	6	3.19	415
4	7 July, 1935 ...	5	383	43	20,179	8	2.78	561
*5	10 Sept., 1936 ...	4	—	—	—	—	—	—

*Record incomplete for 5th lactation.



"TRACEY'S MILKMAID 5TH." Catalogue number 153.

Exhibited in Class 11 (for South Devon Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 5th April, 1924. Age when photographed 12 years 7 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, First Milking Trial, Third Butter Test, South Devon Herd Book Society's Challenge Cup, Reserve Spencer Challenge Cup.

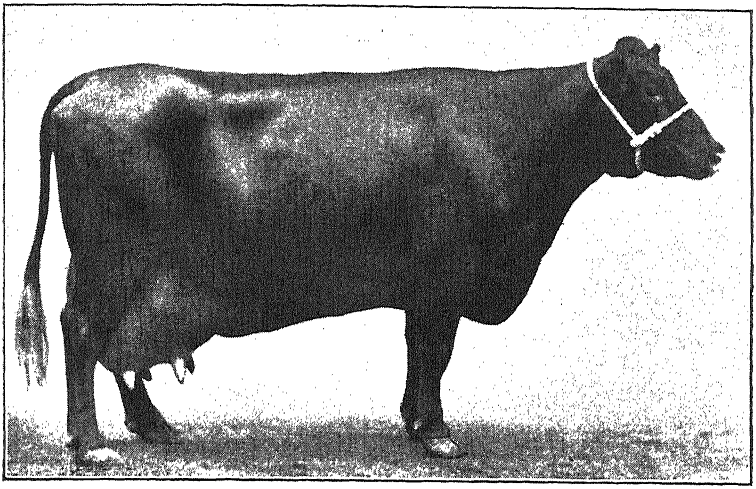
Owner and Breeder, Walter Hunt, Esq., Diptford, South Brent, South Devon.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	28 Oct., 1926 ...	19	396	57	7,574¾	Not	tested.	
2	12 Feb., 1928 ...	6	289	93	7,455½		do.	
3	6 Mar., 1929 ...	4	268	50	8,997½		do.	
4	22 Jan., 1930 ...	6	411	38	10,381¼		do.	
5	22 Apr., 1931 ...	4	284	41	11,332½		do.	
6	16 Mar., 1932 ...	4	286	62	10,390½		do.	
7	3 Mar., 1933 ...	4	327	124	12,098½		do.	
8	1 June, 1934 ...	4	335	31	13,262		do.	
9	6 June, 1935 ...	4	400	83	10,723¾		do.	
*10	5 Oct., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 10th lactation.



"MORSTON GIRL 14TH." Catalogue number 176.

Exhibited in Class 15 (for Red Poll Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph taken on October 21st, 1936.

Born 11th February, 1928. Age when photographed 8 years 8 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Extra Inspection, First Milking Trial.

Owner, Col. H. E. Hambro, Coldham Hall, Bury St. Edmunds.

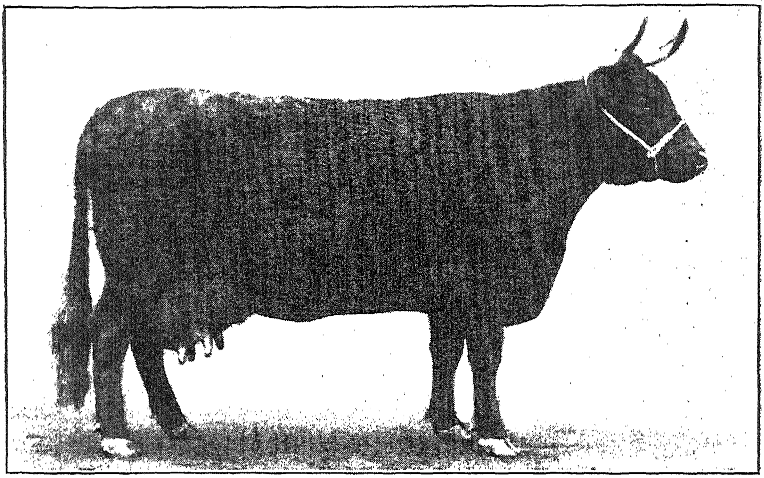
Breeder, A. T. Pratt, Esq.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	29 Aug., 1931 ...	—	—	—	—	—	—	—
2	4 Aug., 1932 ...	4	251	54	8,639¾	No	record.	
3	9 June, 1933 ...	4	397	101	15,678¼	6	3.32	521
4	24 Oct., 1934 ...	4	294	44	9,760½	6	3.22	314
5	1 Oct., 1935 ...	9	311	49	16,848½	7	3.55	598
*6	4 Oct., 1936 ...	7	—	—	—	—	—	—

*Record incomplete for 6th lactation.



" GRACE." Catalogue number 212.

Exhibited in Class 18 (for Welsh Black Cow).

B.D.F.A. official photograph taken on October 21st, 1936.

Born 5th August, 1930. Age when photographed 6 years 3 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Extra Inspection, First Milking Trial, First Butter Test.

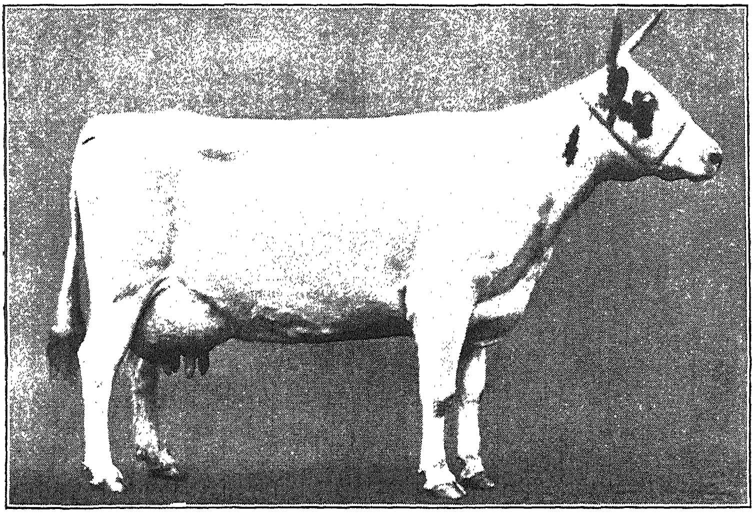
Owner and Breeder, The Hon. Lady Shelley Rolls, The Hendre, Monmouth.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	6 Nov., 1934 ...	4	259	53	10,854¾	—	—	—
2	18 Sept., 1935 ...	4	319	35	11,721½	—	—	—
*3	10 Sept., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 3rd lactation.



“ Birnieknowe Adelaide.” Catalogue number 220.

Exhibited in Class 19 (for Ayrshire Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph taken on October 21st, 1936.

Born 20th October, 1926. Age when photographed 10 years.

Prizes won at the London Dairy Show, 1936 :—Fifth Inspection, First Milking Trial, Second Butter Test, One of the group winning the Bledisloe Challenge Trophy.

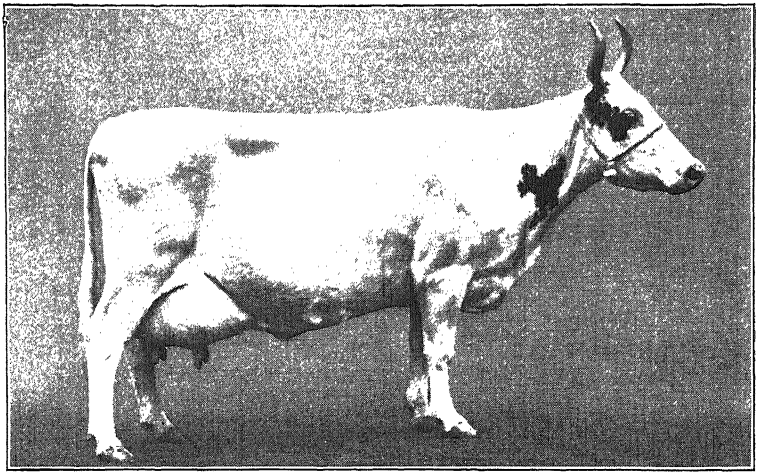
Owner and Breeder, John Baird, Esq., Birnieknowe, Auchinleck, Ayrshire.

Details of thirteen body measurements given on page 125.

Lactation Milk Records (Compiled from Information supplied by Owner and Milk Recording Societies).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	4 Oct., 1929 ...	—	363	61	12,080	17	3.84	464
2	2 Dec., 1930 ...	—	330	117	11,390	16	3.59	409
3	22 Feb., 1932 ...	—	312	61	11,580	15	3.99	462
4	2 Mar., 1933 ...	—	360	34	12,840	15	3.71	476
5	31 Mar., 1934 ...	—	337	59	13,550	17	3.61	489
6	2 May, 1935 ...	—	336	180	16,030	16	3.57	572
*7	2 Oct., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 7th lactation.



"BLACKBYRES PRINCESS 3RD." Catalogue number 234.

Exhibited in Class 19 (for Ayrshire Cow, born on or previous to August 1st, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 24th April, 1929. Age when photographed 7 years 6 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Second Milking Trial, One of the group winning Bledisloe Challenge Trophy, Reserve for Rowallan Cup.

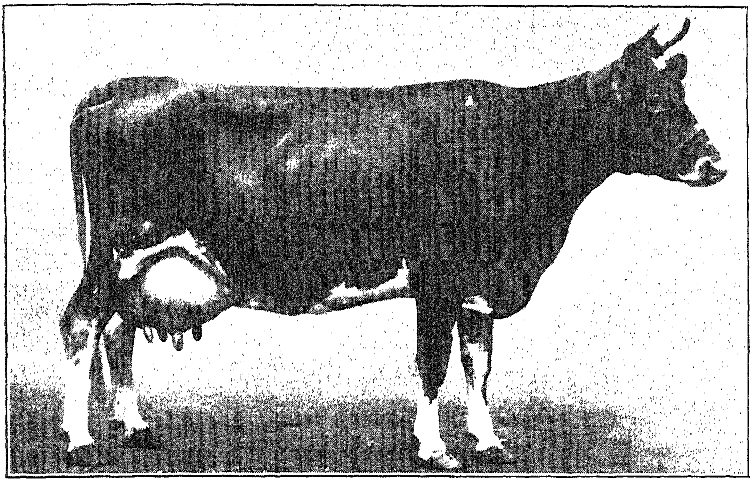
Owner, D. Mackay, Esq., Symonds Hyde, Hatfield.

Breeders, Messrs. R. and J. Marr

Details of thirteen body measurements given on page 125.

MILK RECORDS.

Lactation milk records not available, the cow gave 9,559 lbs. milk during the year ending Oct. 1st, 1935.



" DAIRYMAID OF RIDUNA." Catalogue number 282.

Exhibited in Class 22 (for Guernsey Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 17th January, 1930. Age when photographed 6 years 9 months.

Prizes won at the London Dairy Show, 1936 :—First Milking Trial.

Owner, Carl Holmes, Esq., Codicote, Hitchin.

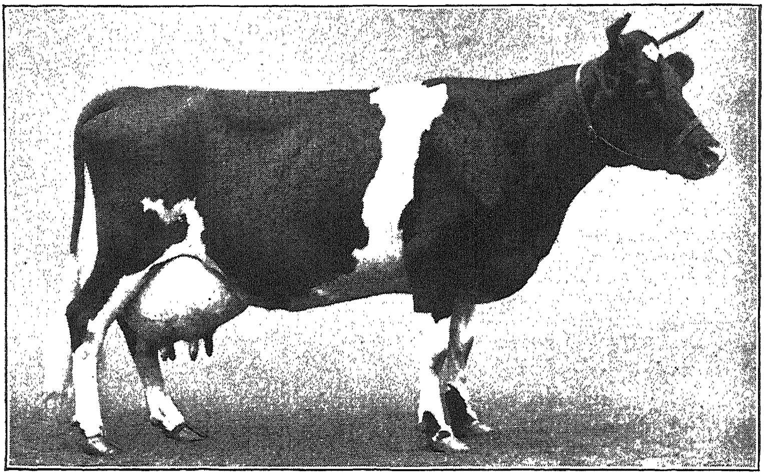
Breeder, D. S. Le Cocq.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	27 Sept., 1932 ...	4	561	70	17,590	8	4.77	839
2	24 June, 1934 ...	4	402	57	12,794	8	4.66	596
3	30 Sept., 1935 ...	4	310	30	10,653	7	5.35	570
*4	8 Sept., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 4th lactation.



"VALENCE LAVENDER 2ND." Catalogue number 284.

Exhibited in Class 22 (for Guernsey Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 24th August, 1927. Age when photographed 9 years 2 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Second Milking Trial, Fourth Butter Test.

Owner, Capt. H. J. Pilbrow, Chartwell, Westerham.

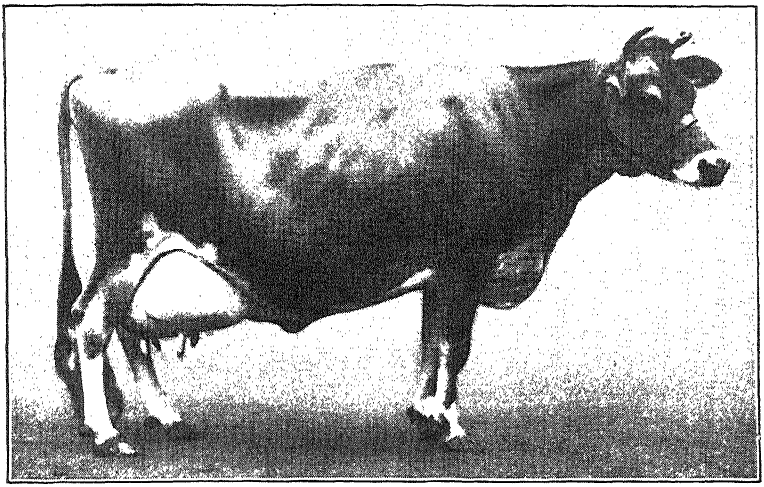
Breeder, C. I. Blackburne, Esq.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	28 Feb., 1930 ...	4	356	62	10,122¼	—	4.87	493
2	26 Apr., 1931 ...	4	370	—	12,269	—	4.59	563
3	4 May, 1932 ...	4	350	136	6,109¾	5	4.80	293
4	6 Sept., 1933 ...	9	492	39	16,571	9	4.74	785
5	28 Feb., 1935 ...	4	321	47	12,329¾	7	4.70	579
*6	6 Mar., 1936 ...	4	—	—	—	—	—	—

*Record incomplete for 6th lactation.



"DREAMING FLECKIE LASS." Catalogue number 306.

Exhibited in Class 25 (for Jersey Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 31st May, 1930, Age when photographed 6 years 5 months.

Prizes won at the London Dairy Show, 1936 :—Second Inspection, First Milking Trial, Third Butter Test, Jersey Production Challenge Trophy, Loxwood Jubilee Challenge Cup.

Owner, Sir John B. Lloyd, Stone Street, Sevenoaks, Kent.

Breeder, Mrs. E. Mauger.

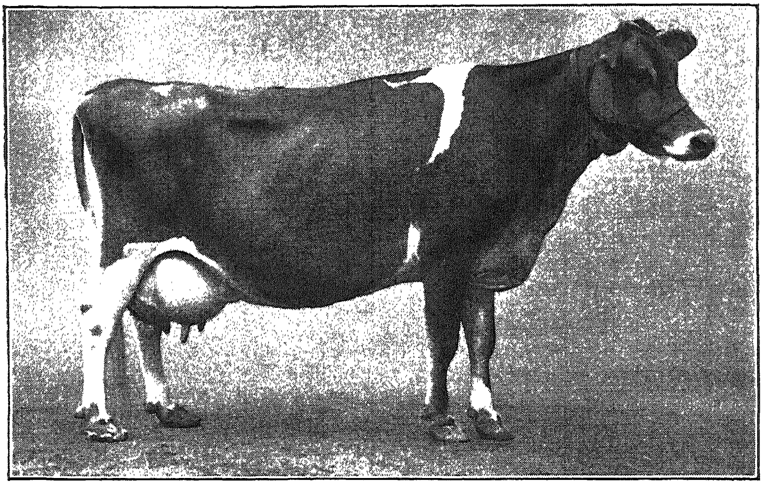
Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	Unknown ...	—	—	—	—	—	—	—
2	26 Mar., 1934 ...	†14	298	43	7,699½	6	5.12	394
3	15 Apr., 1935 ...	7	374	109	8,174	7	5.31	434
*4	17 Aug., 1936 ...	4	—	—	—	—	—	—

†Not recorded.

*Record incomplete for 4th lactation.



"QUEEN'S DREAM LADY." Catalogue number 309.

Exhibited in Class 25 (for Jersey Cow, born on or previous to 1st August, 1931).

B.D.F.A. official photograph taken on October 21st, 1936.

Born 25th February, 1931. Age when photographed 5 years 9 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Extra Inspection.

Owners, Ovaltine Dairy Farm, Abbots Langley, Herts.

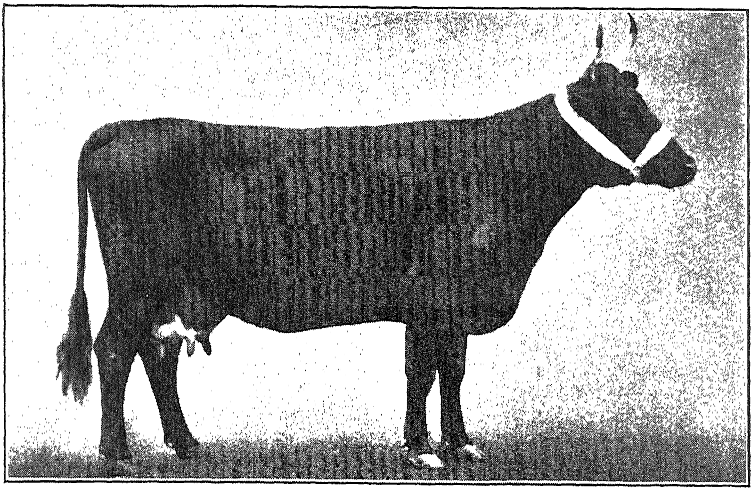
Breeder, L. P. Merhet.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNERS AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	—	—	—	—	—	—	—	—
2	12 May, 1934 ...	4	303	49	9,621¼	8	5.38	518
3	3 May, 1935 ...	4	303	58	11,674	9	5.16	602
*4	2 May, 1936 ...	8	—	—	—	—	—	—

*Record incomplete for 4th lactation.



" ARD CAEIN DOE." Catalogue number 384.

Exhibited in Class 28 (for Kerry Cow).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 23rd December, 1930. Age when photographed 5 years 10 months.

Prizes won at London Dairy Show, 1936 :—First Inspection, Extra Inspection, Second Milking Trial, Reserve British Kerry Cattle Society's Challenge Cup.

Owner, Lt.-Col. J. A. Innes, Horringer Manor, Bury St. Edmunds.

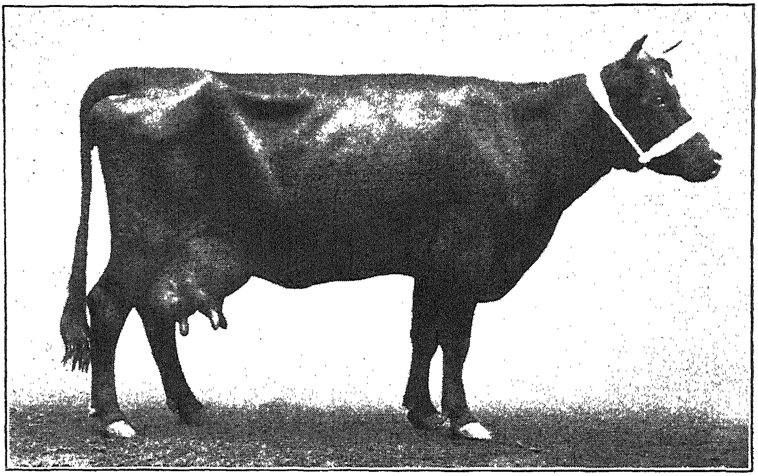
Breeder, S. J. Brown, Esq.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	10 Mar., 1934 ...	7	380	40	7,232	Insufficient	tests to av	erage.
2	11 May, 1935 ...	4	340	42	7,341		do.	
*3	31 May, 1936 ...	4	—	—	—	—	—	—

*Record incomplete for 3rd lactation.



"SUMMERHILL TRICIA 2ND." Catalogue number 387.

Exhibited in Class 28 (for Kerry Cow).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 31st March, 1932. Age when photographed 4 years 7 months.

Prizes won at the London Dairy Show, 1936 :—Third Inspection, First Milking Trial, First Butter Test, British Kerry Cattle Society's Challenge Cup.

Owner, Miss H. G. B. Bowen-Colthurst, Chappel, Colchester.

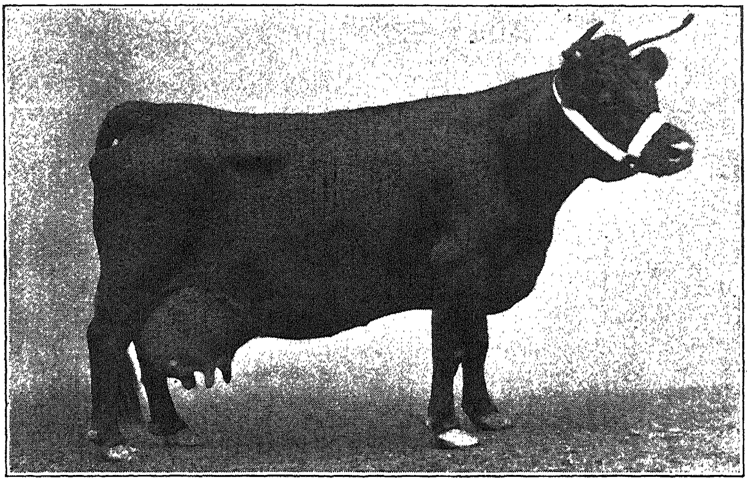
Breeder, S. Gibson, Esq.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	2 Aug., 1934 ...	4	355	7	6,392½	—	—	—
2	9 Sept., 1935 ...	4	314	38	7,735¼	6	3.71	287
*3	30 Aug., 1936 ...	—	—	—	—	—	—	—

*Record incomplete for 3rd lactation.



" GRINSTEAD NIGHTINGALE 3RD." Catalogue number 389.

Exhibited in Class 30 (for Dexter Cow).

B.D.F.A. official photograph taken on October 21st, 1936.

Born 19th December, 1925. Age when photographed 10 years 10 months.

Prizes won at the London Dairy Show, 1936 :—First Milking Trial, First Butter Test, Loder Challenge Cup.

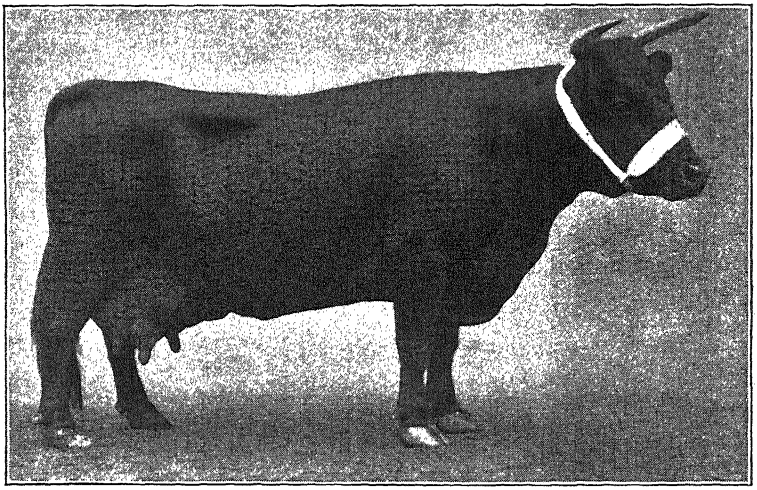
Owner and Breeder, Lady Loder, Leonardslee, Horsham.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry.		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	15 Aug., 1928 ...	4	294	66	5,544	—		—
2	14 Aug., 1929 ...	4	294	87	6,646	—	—	—
3	3 Sept., 1930 ...	4	231	—	5,630¾	—	—	—
4	26 Apr., 1931 ...	4	248	117	3,375¾	—	—	—
5	29 Apr., 1932 ...	4	367	12	9,306¼	—	—	—
6	17 May, 1933 ...	4	294	68	5,643¼	4	3.77	213
7	18 May, 1934 ...	4	278	78	8,635¼	5	4.02	347
8	13 May, 1935 ...	4	282	66	8,003¼	5	4.09	327
*9	29 Apr., 1936 ...	4	—	—	—	—	—	—

*Record incomplete for 9th lactation.



"GRINSTEAD DOLLIE 2ND." Catalogue number 391.

Exhibited in Class 30 (for Dexter Cow).

B.D.F.A. official photograph, taken on October 21st, 1936.

Born 18th May, 1929. Age when photographed 7 years 5 months.

Prizes won at the London Dairy Show, 1936 :—First Inspection, Extra Inspection, Second Milking Trial, Reserve Loder Challenge Cup.

Owner, Comtesse Elizabeth de Pret Roose, Edens, Rudgwick.

Breeder, Lady Loder.

Details of thirteen body measurements given on page 125.

LACTATION MILK RECORDS (COMPILED FROM INFORMATION SUPPLIED BY OWNER AND MILK RECORDING SOCIETIES).

No. of Lactation.	Calving Date.	No. of days the Cow			Lactation milk yield.	Summary of Butter Fat Tests.		
		Suckled a Calf.	Was Recorded (excluding Suckling period).	Was dry		No. of complete day tests.	Average percentage.	Lactation yield of Fat.
					lbs.			lbs.
1	23 Aug., 1931 ...	4	304	47	5,057¼	5	3.73	189
2	12 Aug., 1932 ...	4	313	32	5,592¾	6	3.83	214
3	27 July, 1933 ...	4	317	38	6,054	7	3.60	218
4	21 July, 1934 ...	4	339	10	7,964¼	Insufficient tests.		
5	9 July, 1935 ...	4	363	47	8,001½	6	3.25	260
*6	26 Aug., 1936 ...	4	—	—	—	—	—	—

*Record incomplete for 6th lactation.

MEASUREMENTS OF FIRST PRIZE WINNERS, LONDON DAIRY SHOW, 1936.

TAKEN OCTOBER 21ST, 1936, BY S. BARTLETT.

	Catalogue Number of Animal	10	14	59	60	77	99	101	153	176	212	220	234	282	284	306	309	384	387	389	391
	First Prize— Inspection or Milking Trials	M. T.	Insp.	Insp.	M. T.	Insp. & M. T.	Insp.	M. T.	Insp. & M. T.	Insp. & M. T.	Insp. & M. T.	M. T.	Insp.	M. T.	Insp.	M. T.	Insp.	Insp.	M. T.	M. T.	Insp.
	Name of Animal.	Steppingley Clover's Gift 4th.	Fair Foggathorpe.	Betty.	Lodge . Snowdrop.	Histon Acacia 5th.	Terling Breeze 34th.	Terling Contented 26th.	Tracey's Milkmaid 5th.	Morston Girl 14th.	Grace.	Birnieknowe Adelaide.	Blackbyres Princess 3rd.	Dairymaid of Riduna.	Valence Lavender 2nd.	Dreaming Fleckie Lass.	Queen's Dream Lady.	Ard Cacin Doe.	Summerhill Tricia 2nd.	Grinstead Nightingale 3rd	Grinstead Dollie 2nd.
	Breed.	Pedigree Shorthorn.	Pedigree Shorthorn.	N.P. Shorthorn.	N.P. Shorthorn.	Lincoln Red	British Friesian.	British Friesian.	South Devon.	Red Poll.	Welsh Black.	Ayrshire.	Ayrshire.	Guernsey.	Guernsey.	Jersey.	Jersey.	Kerry.	Kerry.	Dexter.	Dexter.
	Live Weight	lbs. 1,569	lbs. 1,260	lbs. 1,312	lbs. 1,411	lbs. 1,446	lbs. 1,504	lbs. 1,358	lbs. 1,644	lbs. 1,538	lbs. 1,333	lbs. 1,148	lbs. 1,162	bs. 1,090	lbs. 1,001	lbs. 900	lbs. 937	lbs. 950	lbs. 802	lbs. 686	lbs. 700
MEASUREMENTS.	(a) Length of Body	in. 62.7	in. 58.3	in. 57.4	in. 57.8	in. 59.3	in. 59.7	in. 59.3	in. 65.3	in. 59.8	in. 57.7	in. 57.9	in. 56.0	in. 58.7	in. 55.2	in. 53.5	in. 55.0	in. 54.8	in. 52.5	in. 48.3	in. 46.3
	(b) Length of Hindquarters	21.1	20.3	20.0	19.0	20.4	19.8	20.8	21.3	20.5	19.0	19.2	19.0	19.1	18.3	18.1	18.4	17.4	16.4	15.9	15.3
	(c) Height at Withers	55.4	52.6	51.5	51.6	52.3	54.9	52.8	57.2	52.9	51.6	51.6	51.0	52.9	49.9	46.8	49.1	47.3	47.6	41.3	39.2
	(d) Height at Hooks	55.6	52.9	51.6	52.3	53.9	54.6	53.3	58.2	52.4	51.7	51.8	51.2	53.1	50.0	46.2	47.4	48.5	48.0	40.6	39.4
	(e) Depth of Chest	30.3	29.4	28.0	29.5	31.0	30.2	30.7	30.6	31.7	29.3	28.7	28.9	29.3	27.2	26.5	26.6	26.7	26.2	24.1	23.5
	(f) Width of Chest	17.2	17.5	17.6	18.5	17.8	18.1	17.3	18.0	18.8	18.8	14.6	15.1	14.5	14.0	14.3	14.3	14.2	12.8	13.4	14.0
	(g) Width of Hooks	24.6	22.9	22.6	22.7	23.5	23.1	23.6	24.0	24.5	22.5	21.3	21.5	22.2	19.1	19.4	19.4	20.6	18.8	17.0	17.1
	(h) Width of Thurls	20.6	20.4	19.8	19.8	20.9	21.7	20.7	22.1	20.4	19.1	18.6	18.6	18.1	17.4	16.2	16.7	17.6	16.3	14.4	15.5
	(k) Girth of Barrel	97.5	91.0	91.0	94.0	94.5	96.1	93.0	96.0	93.0	88.0	85.7	92.0	88.9	82.3	86.3	85.3	80.7	76.8	74.8	72.4
	(l) Girth behind Shoulder	79.3	75.7	75.4	77.0	79.1	79.5	78.5	79.8	81.9	76.0	70.9	72.0	72.0	69.0	66.5	67.4	66.6	65.8	60.8	60.5
	(m) Girth of Foreleg	7.6	7.0	7.1	6.9	7.3	7.9	7.3	7.6	7.6	7.3	6.8	7.0	6.6	6.4	5.7	6.2	6.6	6.2	6.1	6.3
	(n) Length of Head	21.4	19.3	19.7	20.4	19.1	20.8	20.9	22.2	20.0	19.4	19.4	20.3	19.8	19.5	17.9	18.2	18.5	18.5	16.7	17.1
	(p) Width of Head	9.0	9.0	8.5	7.9	8.4	8.8	9.4	8.9	9.1	9.1	8.4	8.7	8.5	8.3	8.3	7.9	8.3	7.3	8.3	8.2

ANNUAL REPORT OF THE CONSULTING CHEMIST

By T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.I.R.I., F.C.S.

During the year 1936, the samples submitted by the members for analysis and examination have been very varied in character, but, as in former years, the largest numbers of samples have been milks for routine testing. It is pleasing to report that most of the samples were well above the Government minimum standard.

Several enquiries were received from members concerning the bacterial content, dirt in milk, and the keeping qualities of milk. One point is quite easily dealt with, namely, that in general as the number of bacteria in milk increase so does the time before it will sour diminish. Thus the keeping qualities of the milk are dependent upon a low bacterial count. The subject is slightly more involved when *Bact. Coli* or *Bact. Aerogenes* is present in the milk, as coliform organisms seem to have a markedly deleterious effect on milk, and it is found that with two milk of approximately equal bacterial counts, that containing coliform organisms has the poorer keeping qualities. The necessity of avoiding coliform contamination is, therefore, highly important.

The estimation of dirt by the sediment or other test gives information concerning the gross cleanliness with which the milk has been produced, but it must be emphasised that the estimation does not necessarily afford a criterion as to the kind or number of bacteria in the milk. In fact, the sediment test cannot be employed to determine whether the milk was produced under hygienic conditions, as the absence of dirt does not mean necessarily that the bacterial content is low.

It is, therefore, seen that although the keeping quality of milk is related to its bacterial content, neither is necessarily related to the presence of sedimentary material in the sample of milk.

THE DAIRY SHOW OF 1936

By Sidney Edwards.

Under the Presidency of the Duke of Kent, the Association's 58th Annual Show opened on the 20th of October and closed on the evening of the 24th October. His Royal Highness was unable to attend the Show and Lord Rowallan, who was President in 1935, carried out the duties on this occasion.

At noon on the opening day the Show was visited by the Lord Mayor of London, Sir Percy Vincent, accompanied by the Lady Mayoress, the Sheriffs and their Ladies. The Minister of Agriculture, Mr. Walter Eliot, attended on Tuesday and Wednesday. During the week visits were paid by the Minister of Health, Sir Kingsley Wood, and Mr. R. S. Hudson, M.P.

The Milkmaid Charm competition organised by the *Farmer and Stockbreeder* and Milk Marketing Board attracted a large crowd on Wednesday, but the total number of visitors was little above the average of previous shows.

Cattle.

An outbreak of foot and mouth disease in Oxfordshire and Cheshire accounted for many absentees in the cattle section. Cows were allowed to enter the Agricultural Hall at 4 p.m. on Thursday prior to the Show and from that hour to 10 p.m. 147 animals were passed by the Veterinary Inspectors. At the hour of closing—on Friday, 10 p.m.—231 Cows had been admitted, 6 animals coming from Attested Herds and 75 from Licensed Herds.

The milk produced on Sunday and Monday prior to the opening day of the Show was taken for the Milking Trials and Butter Tests.

Inspection judging of cattle commenced at 8 a.m. on Tuesday and was carried on in the Gilbey and Main Halls, and completed shortly after noon.

Dairy Shorthorns had many absentees. Six animals paraded in the Senior Cow Class, the first prize going to a neat white cow that won the "Calvert" Cup at last year's show and was reserve this year. The second prize cow—a six galloner—of high butter fat content secured third prize in the Milking Trials also.

Eleven good animals paraded in the Young Cow Class. Mr. John Day's " Huxham Duchess Rose 7th " was awarded first prize. A four-year-old cow calved since May 20th that gave a yield of over seven gallons gained second place in the Milking Trials and Butter Tests, won the " Calvert " Cup and Extra Inspection Prize.

A Commended exhibit in this class, " Parkhouse Strawberry 16th," travelled 400 miles to the Show from Kinross-shire, gave a yield of 8 gallons daily, won first prize in the Milking Trials, fourth prize in the Butter Tests and the " Desborough " Cup for the Shorthorn gaining the highest points in the Milking Trials.

Dairy Shorthorn Cows not eligible for Class 1 or 2 were of good quality, the winner an outstanding animal.

Heifers not showing more than four broad teeth were a very good class.

Lincolnshire Red Shorthorns were a class of nine good cows that were difficult to place ; finally Messrs. Chivers & Sons' " Histon Acacia " was placed at the top of the class. Messrs. John Evens & Sons provided the animals placed second, third and reserve.

The Heifers were hardly of the same standard as the mature animals.

British Friesians made an exceedingly good show and were a great improvement on former years especially in their milk vessels. The judges were of the opinion that the winner in the Senior Cow Class, " Terling Breeze 34th," from Lord Rayleigh's Farms, was an outstanding specimen of the Friesian Breed and one of the best cows ever exhibited in London.

South Devons were few in numbers, but those paraded were of exceptional merit. Mr. Walter Hunt's " Tracey's Milkmaid 5th," was an easy winner in the Senior Class, at 12 years old she is typical and well balanced, her yield in the Trials exceeded 8 gallons a day.

The Young Cows were a good class in which " Dartington Hall Nervous Alice 2nd " was a good winner ; furnished with a splendid udder and a rich coat this young cow was also awarded the Extra Inspection Prize.

The Heifers showed character and will develop into good dairy animals.

Red Polls were well represented. The winners in the Senior Class being typical specimens of the breed, their milking qualities stood forth in the udders they carried.

The Young Cows made a grand display—deep bodied, short legs, with very nice milking vessels.

The Heifers hardly came up to the standard of the cows.

Welsh Blacks were disappointing, only two of the eight entries came forward.

Ayrshires were well represented, sixteen paraded in the Senior Cow Class. It was noticeable that they were not nearly as level as last year, but individually there were some exceptionally good cows.

Nine good bagged young cows were forward, and the first prize heifer was as near perfection as one is likely to see.

Guernseys were short in numbers, with a few outstanding animals in the Young Cow Class. The Heifers were not impressive.

Jerseys were the strongest section numerically. Forty-three animals paraded for inspection in the three classes allotted to the Breed, making a capital display.

Kerry Cows were very disappointing, both numerically and in the quality of the animals sent forward.

Dexter Cows were excellent animals though few in numbers.

The classes for Kerry Heifers and Dexter Heifers were cancelled owing to lack of entries.

BULLS (Progeny of).

The entries in this section were thirty-one from seven breeds. Awards are made on the basis of progeny performance.

THE "BLEDISLOE" CHALLENGE TROPHY.

The judging of the teams of six cows from eight breeds was entrusted to Mr. W. Nixon. Immediately the teams paraded the ring it was evident that the margin between several teams must be very narrow. The Ayrshire team carrying shapely udders, with teats nicely placed, gained the maximum points on inspection, closely followed by the Shorthorns, Lincoln Reds and British Friesians. The addition of the points gained in the Milking Trials resulted in the Ayrshires carrying off the trophy for the seventh time. British Friesians gaining the reserve position. The event is the most popular feature of the Show if one may judge by the crowd around the ringside.

SUPREME INDIVIDUAL CHALLENGE TROPHY.

The trophy is awarded to the animal gaining the highest points by Inspection, Milking Trials and Butter Tests. Fifteen animals of the various breeds came before Mr. W. Wilkins. Messrs. Chivers & Sons' "Histon Acacia 5th" was selected to lead the class, a position she maintained although challenged by the Ayrshire, "Blackbyres Princess 3rd." The addition of the Milking Trials and Butter Tests points resulted in the Trophy being awarded to the Lincoln Red cow, "Histon Acacia 5th," with the British Friesian, "Terling Contented 26th" in the reserve position.

The Supreme Champion had a total of 394.38 points. Reserve animal 358 points.

GOATS.

The Goats were given an island position which made inspection by the general public much easier than at some former shows. The arrangement met with the approval of Stewards and Exhibitors.

CHEESE.

The exhibits of Cheese were staged in the Barford Hall and entries continue to increase since 1932.

Stiltons (12 Cheeses) attracted eleven entries. The prize-winning exhibits were very good. The first prize Cheese was also awarded the City of London Cup for the best exhibit of Stilton or Wensleydale Cheese.

The entries in the Cheddar Classes were numerous, but in the opinion of the judges exhibits were not up to the usual standard owing to the climatic conditions of the past season.

Cheddar Cheese, Coloured or Uncoloured, produced in the British Empire (Overseas) got thirty-two entries. The improvement is very marked. The Cheese were really well made and a wonderful advance in flavour and texture. The exhibits were chiefly from New Zealand, although Australia and South Africa were represented.

The Cheshire Cheese Classes were well supported and some very fine cheese were on view. The fight for honours was very keen. The "Bland" Challenge Cup which is awarded to the maker of the best exhibit of Cheshire Cheese was won by Mr. H. Barnett's entry of 4 Uncoloured Cheeses which in texture and flavour were definitely prominent. At the 1935 Dairy Show Mr. Barnett won the "Bland" Cup with an entry of 8 cheeses.

The class for Ayrshire Dunlops, 4 Cheeses from 40 to 60 lbs. each, got sixteen entries, all of a very high standard; flavour throughout was good. The finish of the Cheese was very attractive. The first prize exhibit was awarded the Champion Cup, presented by the Corporation of the City of London, for hard pressed Cheese other than Stilton, Wensleydale, Cheddar and Cheshire. Also the Ayrshire Trophy (presented by Lord Rowallan) for the best exhibit of Cheese made on the farm in Scotland.

Leicesters were a very small entry of excellent quality.

Lancashire Cheeses had an entry of twenty-eight in the two classes allotted to that variety. The prize winning exhibits were of excellent flavour, quality and appearance. The best exhibit in the quick ripening class being Reserve for the City of London Cup.

Derby (Uncoloured Cheeses) were a small entry. The makers are to be congratulated on turning out such quality cheese in a difficult season.

Double and Single Glosters were a good entry of fourteen and twelve respectively of excellent quality.

The Class for Caerphilly Cheese got eighteen entries. The prize winning exhibits were good in type and turned out well and of the standard appreciated by buyers.

The four exhibits of Wensleydale (Blue-moulded) were of average quality.

Wensleydale (White) an entry of five, with first and second prize exhibits of good quality. The remaining lots were moderate.

The Classes for Small Hard Pressed Cheese were well filled with entries of a high standard, both in quality and general appearance.

The Inter-County Competition attracted four entries. The Gloucestershire exhibit gaining first prize and the Inter-County Challenge Shield.

LONSDALE CHALLENGE TROPHY.

The Cheeses placed before the judge were all of high class quality. The Cheshire exhibit that won the " Bland " Cup was outstanding in flavour and general characteristics and a true type of what a Cheshire should be.

The reserve Cheddar was good, but not quite so true to type as the Cheshire.

PARTICULARS OF BACON PIG

Catalogue Number.	Exhibitor's Name.	No. of Pigs.	Breed.	Average Age.		Average Dead Weight.	Live Weight.	Dead Weight.	Percentage Loss Live Weight to Dead Weight
				Mths.	days.	lbs.	lbs.	lbs.	lbs.
	CLASS 90.—Two hogs and two gilts—pure-bred.								
1118	Chivers & Sons, Ltd.	4	Large White	6	16	158.25	835	633	24.1
1119	A. Barclay	4	Large White	6	16	153.75	808	615	23.8
	CLASS 91.—One hog and one gilt—pure-bred.								
1127	Earl of Radnor	2	Large White	6	10	156.5	413	313	24.2
1128	Hertfordshire Inst. Agric.	2	Large White	6	10	152	414	304	26.5
1131	A. Barclay	2	Large White	6	16	147.5	390	295	24.3
1134	R. Ewart Owen	2	Welsh	6	15	147	383	294	23.2
1136	Jack R. Major	2	Large White	6	2	146.5	381	293	23.0
1138	W. A. Whidden	2	Large White	6	5	159	408	318	22.0
	CLASS 92.—One hog and one gilt—first cross.								
1139	Viscount Lymington	2	Large White & Wessex	5	28	148.5	388	297	23.4
1140	Hertfordshire Inst. Agric.	2	Large White & Wessex	6	15	146	405	292	27.9
1142	H. N. Brooking	2	Large White & Nat. Lop Eared	6	10	153	390	306	21.5
1145	E. Harding	2	Large White & Wessex	6	15	146.5	377	293	22.2
1147	C. L. Coxon	2	Welsh & Large White	6	6	147	387	294	24.0
	CLASS 93.—Two hogs and two gilts—recorded.								
1151	Earl of Radnor	4	Large White	6	10	149	801	596	25.5
1152	T. L. Ward	4	Large White x Large White & Middle White	5	15	145	768	580	24.4
1156	Miss J. K. B. Little	4	Large White x Large Black	6	15	160	842	640	23.9
1159	R. Silcock & Sons, Ltd.	4	Large White	6	13	154.75	815	619	24.

CLASSES, DAIRY SHOW, 1936.

Bacon Weight.	Percentage Loss Live Weight to Bacon Weight.	Thinness of Back Fat.	Thickness of Streak.	Length for Weight.	Proportion of Cuts.	Reduction of Fat from Shoulder to Gammon.	Proportion of Lean to Fat on Cut Side.	Shape of Gammon.	Quality (Firmness) of Fat.	Fineness of Bone.	Thinness of Rind.	Total.	F'cundity		Age for weight.	Carcass Quality.	Total.	Award.
													Numbers weaned.	Average weight at 8 weeks.				
lbs.	lbs.	15 Pts.	10 Pts.	10 Pts.	10 Pts.	5 Pts.	20 Pts.	5 Pts.	15 Pts.	5 Pts.	5 Pts.	100 Pts.	50 Pts.	50 Pts.	100 Pts.	100 Pts.	300 Pts.	
463	44.5	13	7	10	7	3	18	3	13	3	4	81	—	—	—	—	—	*1st
454	43.8	11	6	9	8	4	18	4	13	4	3	80	—	—	—	—	—	2nd
236	42.8	11	10	10	10	5	17	5	9	4	2	83	—	—	—	—	—	†1st
223	46.1	8	6	7	5	3	15	4	14	3	2	67	—	—	—	—	—	
215	44.8	8	5	9	6	4	14	5	14	4	3	72	—	—	—	—	—	Res.
218	43.0	8	8	9	7	4	14	4	11	5	3	73	—	—	—	—	—	3rd
212	44.3	10	5	8	6	2	12	5	14	4	3	69	—	—	—	—	—	
233	42.8	14	9	10	7	5	16	4	11	4	2	82	—	—	—	—	—	2nd
218	43.8	10	9	9	9	4	15	5	13	5	3	82	—	—	—	—	—	‡1st
210	48.1	10	5	10	7	4	16	4	13	4	4	77	—	—	—	—	—	Res.
226	42.0	10	10	7	7	2	16	5	11	4	4	76	—	—	—	—	—	V.H.C.
212	43.7	9	8	8	8	4	16	4	14	4	4	79	—	—	—	—	—	2nd
217	43.9	8	8	9	9	4	11	5	15	5	4	78	—	—	—	—	—	3rd
441	44.9	11	9	10	9	5	15	5	12	5	3	84	40	35	60	84	219	§2nd Class
438	42.9	8	8	8	7	3	17	5	10	4	5	75	40	49	100	75	264	‖1st Class
463	45.0	12	8	10	7	4	11	5	11	3	3	74	45	43	80	74	242	1st Class
458	43.8	11	9	5	7	3	19	5	14	3	3	79	50	39	65	79	233	1st Class

*Whitley Cup. †Beale Cup. ‡Bledisloe Cup. §Harris Cup. ‖Pig Recording Cup.

The Trophy has now been won by Dunlop, Cheddar and Cheshire makers.

Sweet Cream Cheese were an entry of fifteen and many of the exhibits were almost identical. In most cases the packing was good.

Unripened Soft Cheese were very good—the prize winning lots being excellent cheeses of their type.

The ten entries for Collections of Produce open to Women's Institutes came from the West of England and South Wales.

Many of the exhibits had been damaged in transit. Those gaining awards were excellent and it was difficult to award the prizes.

BACON AND HAMS.

The Classes for Smoked and Pale Dried Sides were cancelled owing to lack of entries.

In the Bacon Pig Classes entries were numerous, but several exhibits failed to qualify for Class I. Grade C. of the Pigs Marketing Board Contract. The disqualification of one pig in an exhibit disqualified the whole exhibit. The effect of disqualification reduced the exhibits for the "Whitley" Challenge Cup from eleven to two. The Cup was awarded to Messrs. Chivers & Sons' exhibit of Large Whites. Reserve going to Mr. A. Barclay for pigs of the same breed.

Six exhibits qualified for the "Beale" Challenge Cup. First and second places were secured by exhibits of the Large White breed. A pair of Welsh pigs gained the third position. Lord Radnor's pair of pigs were the winners of the Challenge Cup.

The "Bledisloe" Bacon Challenge Cup for first cross pigs was awarded Viscount Lymington for his entry of Large White X Wessex pigs; the reserve position going to Mr. E. Harding for a pair of the same cross.

In the Recorded Class, Mr. L. T. Ward took the "Pig Recording" Challenge Cup with his entry of Large White X Large White-Middle White. Mr. Ward has won the Cup four times in all. On the former occasions his winning pigs being Large White X Large Black.

The C. & T. Harris (Calne) Ltd. Challenge Cup for the best four sides of Wiltshire Bacon was won by Large White sides from the Earl of Radnor's exhibit in the Recorded Class.

Fourteen entries competed for the Silver and Bronze Medals awarded for four Sides of Bacon produced in the British Empire (Overseas). Exhibits were from South Africa and Canada. The Canadian exhibits were awarded both Medals.

Hams were an excellent entry of average quality.

BUTTER.

Entries of Butter were a marked decrease from last year. The judges report very favourably on the 2 lb. Classes, many exhibits being of outstanding flavour and texture. A few samples had not been packed in a manner to ensure their arrival in good condition. Makers from the counties of Devon and Cornwall were prominent in the prize list.

The Butter—both Salted and Unsalted—in wooden boxes was of very fine quality.

The exhibits for table use were few in numbers, the make-up was attractive and the butter of excellent quality.

The Fancy or Ornamental exhibits were greatly admired. The first prize winner staged a beautiful exhibit of very finely made flowers.

Salted Butter produced in the British Empire (Overseas) was of a higher quality than that of previous years, there being an absence of really poor quality butter.

The Unsalted Butter was also of a very high standard and caused the judges some difficulty in making their awards. With a few exceptions the exhibits of Salted and Unsalted Butters were of Australian origin.

CREAM.

The eight exhibits of Clotted Cream from Wholesale Creameries and Factories were a very even class of clean flavour.

The majority of the ten cream entries were too frothy. Some very thin and a poor colour. The first prize lot was excellent in texture.

Clotted Cream not open to Wholesale Creameries and Factories attracted twenty entries that were very good throughout.

Cream, other than clotted—not open to Wholesale Creameries—was a disappointing class, many of the exhibits were too thick and would not pour. The flavours were good.

BOTTLED AND CANNED FRUITS, FRUIT JUICES, VEGETABLES AND JAMS.

This section as a whole was very good. Classes were larger than last year and a new class added for fruit juices. The Co-operative Exhibits from Women's Institutes was very good. In nearly every case the entries showed real co-operation on the part of members.

HONEY AND WAX.

Entries were fewer than last year. Exhibits were well got up and considering the very poor season the quality was excellent. The winning exhibits were very fine and the awarding of the prizes proved a difficult matter.

INVENTIONS.

Classes were provided for new inventions relating to the dairy industry. Milk producers were able to inspect sterilizing chests with coal fired boilers. Oil or gas-fired outfits and electrically heated outfits.

JUNKET MAKING CONTESTS.

The Junket making Contests are increasing in popularity, entries having risen from forty-five in 1935 to fifty-three this year. The competitors worked methodically and with no undue waste of time.

The Championship was awarded Miss N. M. Paull, of Cornwall.

BUTTER MAKING CONTESTS.

The above contests are a central feature of the Show. The competitors showed skill, neatness and intelligence at their work, which was of a high standard. The Championship was won by a Devonshire competitor, Mrs. J. Mogford, South Molton.

MILKERS' CONTESTS.

The standard of milking was very good. Uniformity was shown in the suitability of dress and preparation of the cow. The Champion Milker, Miss K. Jones, Shrewsbury, gave a skilled performance and added another victory for the fair sex in these contests.

COW JUDGING CONTESTS.

Competition was very keen among the teams of Students from Agricultural Colleges, Farm Institutes and County Council classes. The judges report a marked improvement over the comparatively few years during which the contest has been held. The

Challenge Cup, presented by the Association was won by the team from Studley College—The Misses Kitchen, Skinner and Frew. It is of note that the team sent from Studley in 1935 tied for second place. The instruction given must be on sound lines. The Devon County team were runners up.

The Competitions arranged by the National Federation of Young Farmers' Clubs carried on throughout the Show are a great attraction and of great benefit to the young persons of both sexes who compete.

The Concert held on Thursday evening was an outstanding success and is much appreciated by Herdsmen and Officials on duty at the Show.

The Council are again indebted to Messrs. Frigidaire, Ltd., for the use of their Milk Cooling Plant and to Messrs. Hawkins for their electric washer and drier.

New and Improved Inventions, Dairy Show 1936

DAIRY APPLIANCES.

By J. MACKINTOSH and J. G. STAPLETON.

The New Inventions Classes for 1936 did not include any entry that could, strictly speaking, be described as a New Invention, but they all claimed to be practical improvements.

The Judges decided that no entry showed sufficient merit to justify the awarding of a Gold Medal, so that the awards made were confined to the giving of Silver and Bronze Medals and Money prizes.

In Class 146, for any new invention or apparatus relating to the dairy industry, or one showing distinct and practical improvement, especially as to the saving of labour, there were eleven entries, comprising eight different types of apparatus.

The Dairy Supply Co. Ltd., of Cumberland Avenue, Park Royal, London, entered an improved " Alfa-Laval " Semi-enclosed Gravity Feed Power Cream Separator complete with Cream Pump.

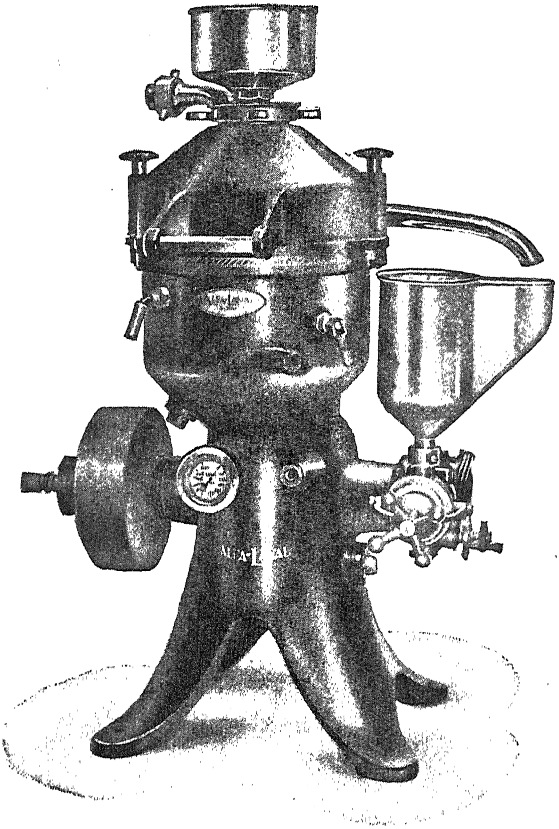
The outstanding feature of this machine was the steady flow of the milk maintained by gravity feed and also the constant and regular supply of cream delivered by means of a pump automatically controlled, which delivers the cream to the cooler in a regular flow and also excludes the possibility of air being drawn into the system. The cooler may be of the enclosed tubular, or plate type, and as the pump is of the positive type, delivery of the cream may be to any convenient point. With this pumping system the skimming efficiency of the separator is not influenced by any variation in back pressure which may occur when pumping cream through an enclosed cooler.

This entry was awarded a Silver Medal.

Mr. J. J. Blow of 10-12, Phoenix Place, London, W.C.1, entered a Compressed Filter Medium—" Homeland-Sunshine "—which is made in England.

The chief advantage of this medium is the price, which is considerably lower than that of a similar medium which has been on the market for some time. The medium has greater strength than the ordinary medium used and in consequence does not tear readily. It will remove all visible dirt from the milk and the rate of filtration is quite satisfactory.

This entry was awarded a Bronze Medal.

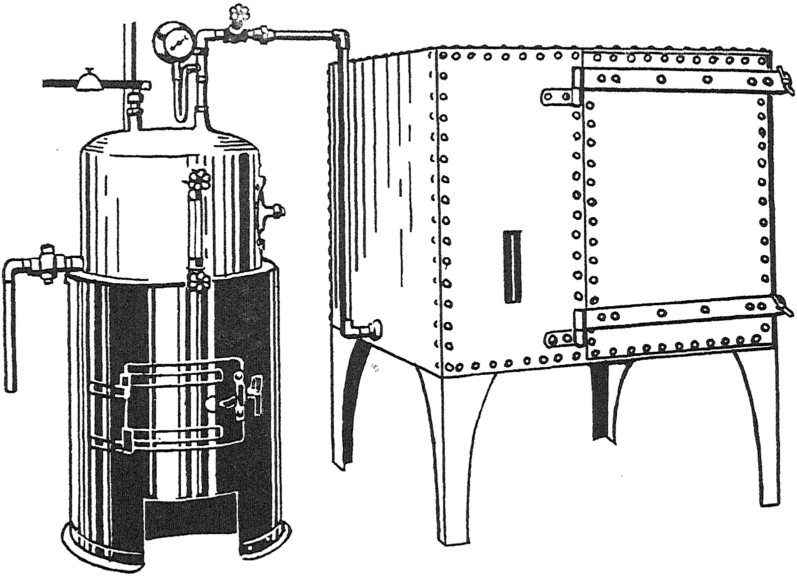


"ALFA-LAVAL" SEMI-ENCLOSED GRAVITY FEED POWER CREAM SEPARATOR COMPLETE WITH FEED PUMP.

A new feature this year was the provision for four classes for equipment designed for the steam sterilisation of dairy utensils on the farm. The equipment must provide hot water and sterilisation must be effected in a chest at a temperature of 210°F. for a period of not less than 10 minutes.

In Class 147, for a coal-fired boiler with chest of not more than 30 and not less than 15 cubic feet capacity, Messrs. J. W. Woolley and Co. of Clifton, Tamworth, Staffs., entered a Coal-Fired Boiler described as the "Clifton" Safety Boiler and "Clifton" Sterilising Chest.

The normal working pressure of the boiler is 5 lb. per square inch, and it is constructed of 3/16th welded steel plate throughout. The cost of outfit is £30 ; capacity of chest is 27 cubic feet ; cost per cubic foot of chest, £1 1s. ; operating time from cold, including hot water, 1 hr. 8 min., and fuel consumption per sterilisation, 12 lb.



THE "CLIFTON" SAFETY BOILER AND STERILIZING CHEST.

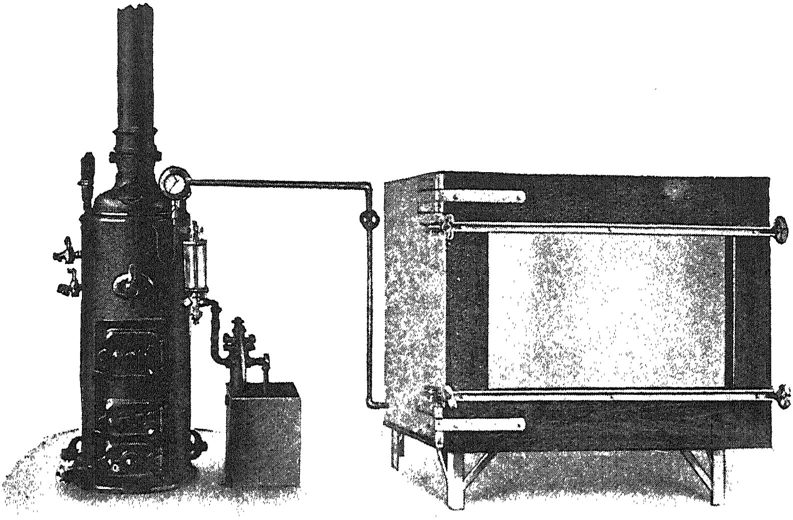
The rapidity with which steam is raised by this boiler is its outstanding feature and it is sturdily constructed. Safety from explosion, and therefore the absence of the need to insure this boiler, is provided for by fitting an open ended pipe which secures the blowing off of the boiler when the pressure exceeds the limit of safety. The water supply is automatic.

This entry was awarded a Silver Medal.

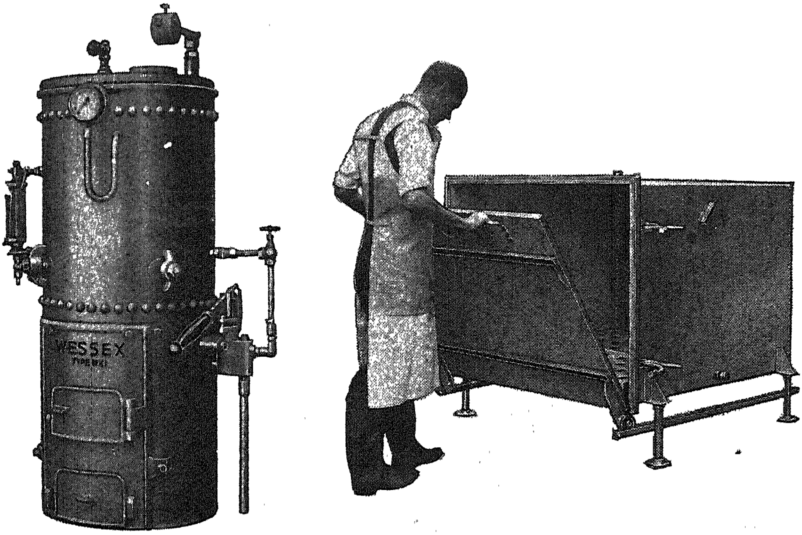
In Class 148, for a coal-fired boiler with a chest of more than 30 cubic feet capacity the Dairy Supply Co. Ltd., of Cumberland Avenue, Park Royal, London, entered their Type "D" Desco Sterilising Outfit.

This outfit has been exhaustively tested by the Sparsholt Agricultural Institution and awarded the Silver Medal, and in view of these tests and the report thereon, together with their own opinion, the Judges awarded a B.D.F.A. Silver Medal to this exhibit.

Price of outfit, £40 ; capacity of chest, 48 cubic feet ; cost per cubic foot of chest, £0.83 ; operating time from cold, including hot water, 1 hr. 45 min ; fuel consumption per sterilisation, 18 lb.



" DESCO " STERILISING OUTFIT. TYPE " D."



" WESSEX " WXI HIGH PRESSURE BOILER AND SUPER CHEST.

In the same class the Wessex Supplies Ltd., of Wells, Somerset, exhibited their Wessex WXI Pressure Boiler designed to work at a pressure of 50 lb. per square inch, and coupled with a steaming chest of 48 cubic feet capacity. This outfit is of good quality and the fuel consumption on test was satisfactory.

Price of outfit £52 ; capacity of chest, 48 cubic feet ; cost per cubic foot of chest, £0.875 ; operating time from cold, including hot water, 1 hr. 18 min., fuel consumption per sterilisation, 15 lb.

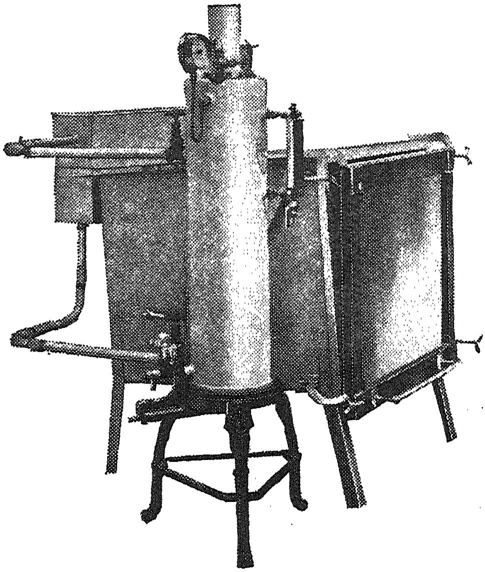
A Bronze Medal was awarded.

In Class 149, for an oil or gas-fired outfit, with a chest of not less than 15 cubic feet capacity, Messrs. Halliday Boilers, Ltd., of Saxon Road, Selhurst, London, S.E.25, entered a Patent Pump-Fed Super-Heated Sterilising Boiler with a 22 cubic feet sterilising chest and a 12 gallon storage tank for hot water.

This plant is very quick in raising steam and efficient.

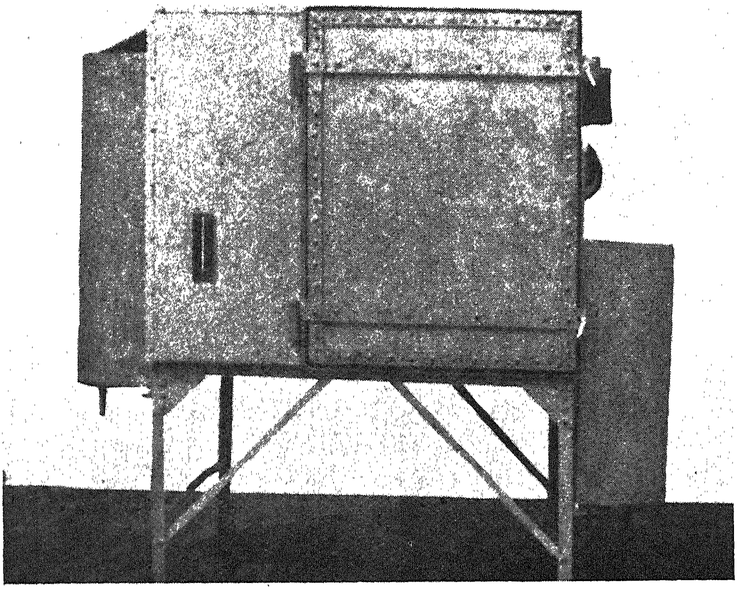
Price of outfit, £34 ; cost per cubic foot of chest, £1.54 ; operating time from cold, including hot water, 57 min. ; fuel consumption per sterilisation, 0.45 gallons.

The plant was awarded a Silver Medal.



PATENT PUMP-FED SUPER-HEATED STERILISING BOILER.

In Class 150, for an electrically heated outfit with a chest of not less than 15 cubic feet capacity, Messrs. J. W. Woolley and Co., of Clifton, Tamworth, Staffs., entered their "Clifton" Electric Sterilising and Water Heating Outfit. This entry had been tested under the Agricultural Machinery Testing Scheme of the Ministry of Agriculture and very satisfactory report issued. Sterilisation can be effected when desired by means of a time switch, and the water heater is independent of the sterilising unit and is thermostatically controlled.



"THE CLIFTON" ELECTRIC STERILIZING AND WATER HEATING OUTFIT.

Cost of outfit, £48 ; capacity of chest, 27 cubic feet ; cost per cubic foot of chest, £1.77 ; operating time from cold, including hot water, 57 mins. ; fuel consumption per sterilisation, 4.7 K.W. hr.

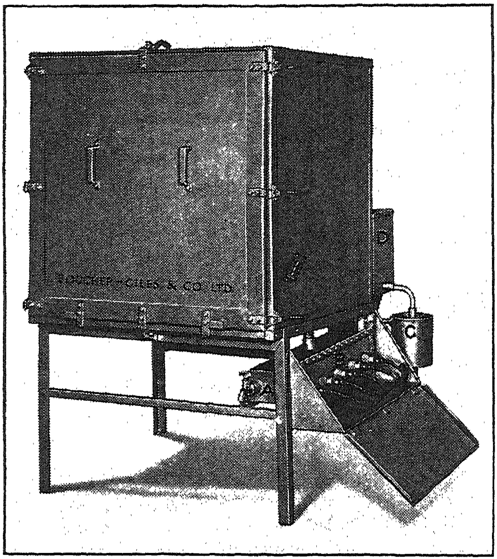
This exhibit was awarded a Silver Medal.

In the same class Messrs. Boucher-Giles and Co. Ltd., of 73, Great Hampton Street, Birmingham, exhibited their No. 2 Reform Electric Sterilising Outfit.

This plant sterilises efficiently and quickly, but the flow taps need careful adjustment to secure the best results, and it does not provide for any considerable amount of hot water for dairy purposes.

Price of outfit, £35 ; capacity of chest, 27 cubic feet ; cost per cubic foot of chest, £1.3 ; operating time from cold, including hot water, 55 mins. ; fuel consumption per sterilisation, 6.8 K.W. hr.

This exhibit was awarded a Bronze Medal.



NO. 2 REFORM ELECTRIC STERILISING OUTFIT.

POULTRY APPLIANCES

By C. N. Goode.

This section has increased enormously in variety and interest during the last few years, and the display this year was quite a feature of the Show.

Mass production of chickens has created a demand for the various appliances necessary for that purpose.

Time was when the appliances in this section were limited to a few Hot Water and Hot Air Incubators of 50 to 200 egg capacity; then came the Mammoth Table Incubator up to about one thousand.

This machine was never a great success and has practically disappeared, and has been replaced by the cabinet type, worked and controlled by electricity, in sizes capable of incubating up to 10,000 or more eggs.

The development of the Cabinet Incubator brought into being the Battery Brooder in order to deal with the mass production of chicks.

These Batteries are built in tiers, or chicken flats, that take about 100 chicks, in each flat, for about a month, when they are passed on to a larger type, for a time, or into Brooder Houses that are fitted with compartments and hovers; from which they are usually put out into small houses or Sussex Arks on the land.

Another appliance that has recently come into use is the Folding Unit. In this the birds are confined in lots of about 25, and are moved daily on to a fresh pitch. The appliance has a sleeping compartment at one end, while at the other end are placed mash hoppers for feeding purposes.

The Fold Unit is much used by farmers with plenty of grass land as it saves expenditure on artificial manure, and the land also benefits by the birds scratching among the tufts of grass and so aerating the soil.

The latest system that is now being developed for egg production is the Laying Battery. Each Dairy Show sees an increasing number of various makes of Battery Cages being exhibited. These cages are about two feet square, fitted with food and water troughs. Each hen has a cage to herself and spends her time in getting on with her job of producing eggs.

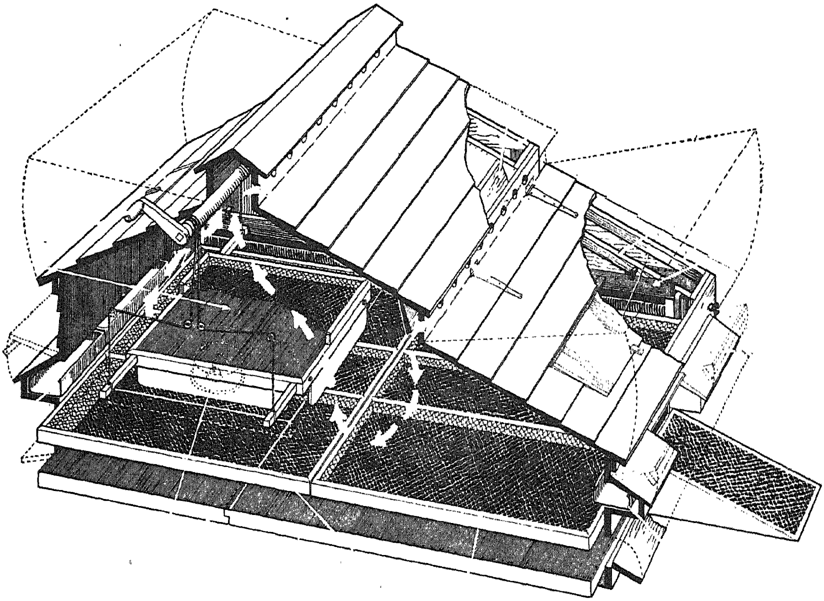
Under proper conditions and management, this system appears to be very successful. I hear of hens that produce nine to eleven eggs a week in these batteries.

No doubt these are exceptions, but, on the whole, the hens in these cages, under good management, produce more eggs than they would if running at large.

When the Battery system was first introduced there was an outcry of " cruelty " ; but a hen in a battery cage has much more liberty than a cow or horse that is tied up by the head in their stalls and cannot turn round. A hen in a Battery Cage has, in comparison, as much liberty as a horse in a loose box.

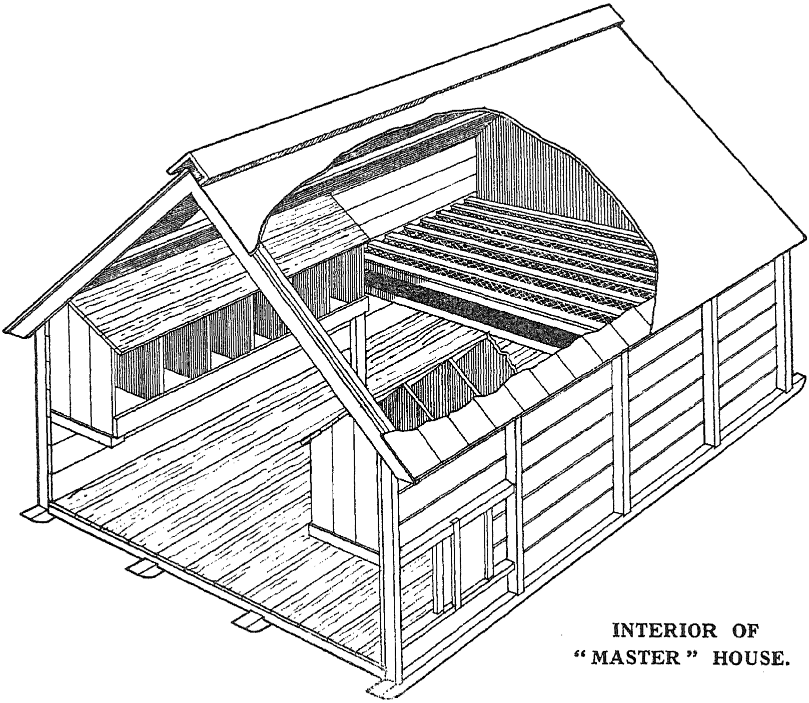
The classes provided for the best type of out-door Brooder, and the best type of Poultry House suitable for farmers, were not well supported, and it is hoped that appliance makers will give these classes more support.

The " Sawyer " Out-door Brooder, exhibited by D. McMaster & Co., was awarded a Silver Medal in the special class. This Brooder, we considered, was very suitable for outdoor work, on a large scale, but we think there is still room for a smaller type of outdoor brooder which can be easily moved about the farm. This would prove more suitable for small holders and farmers.



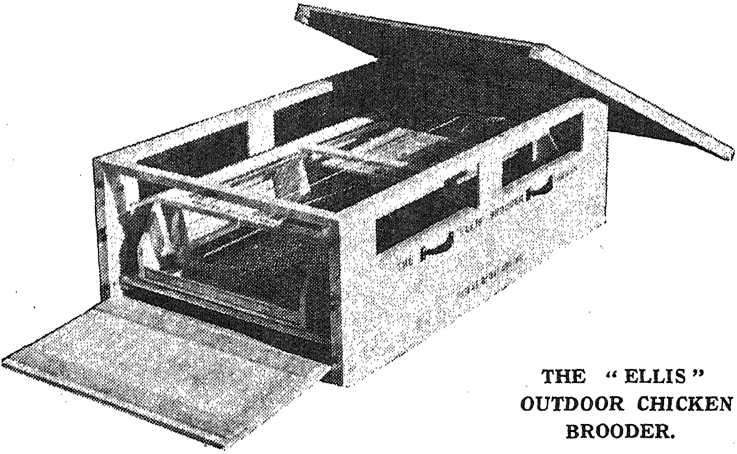
THE " SAWYER " OUTDOOR CHICKEN BROODER.

The same exhibitors took the Silver Medal for their " Master " combined slatted floor and intensive Poultry House suitable for small farmers.



INTERIOR OF "MASTER" HOUSE.

A Bronze Medal was awarded to the Ellis Brooder Co. for their outdoor chicken brooder.



THE "ELLIS" OUTDOOR CHICKEN BROODER.

This was quite a handy appliance but rather light in construction for outdoor work.

THE MILKING TRIALS AT THE DAIRY SHOW 1936

By E. W. S. Press, B.Sc. (Lond.) A.I.C., F.C.S.

The Milking Trials at the 1936 Dairy Show were conducted along the lines of previous years and, although no outstanding records were made, the general level was more than maintained.

From a consideration of the results of the Milking Trials of the last five years it is evident that, whilst the tendency for the creation of high records by individual animals is lessening, the average performances of the breeds in their respective classes is improving, which is a very good indication that the main object of the Milking Trials is being achieved.

The Method of Awarding Points was similar to previous years which is as follows :

One point for every 10 days since calving, deducting the first 40 days, with a maximum of 12 points.
One point for every pound of milk, taking the average yield of the two successive days.
Twenty points for every pound of fat produced.
Four points for every pound of non-fatty solids produced.

Deductions are made of 10 points for each time the fat is below 3 per cent. and 10 points for each time the content of non-fatty solids falls below 8.5 per cent.

Disqualification takes place in the case of any animal whose milk for any one milking falls below 3 per cent. of fat and for the same milking also falls below 8.5 per cent. of solids other than fat. Such disqualification renders the animal ineligible for any award or trophy in any section of the Show.

Ineligible for Award.—Those animals whose milk at three successive milkings falls below 3 per cent. of fat or below 8.5 per cent. of non fatty solids are not eligible for any awards or trophies where the Milking Trial points are taken into account. This condition was inaugurated this year to overcome the anomaly of an animal being awarded a prize whose milk was consistently deficient in either fat or non-fatty solids.

Number of Entries.—The number of entries was very close to the last two years and numbered 393 against 393 in 1934 and 390 in 1935.

Number of Competitors.—The number of animals present was lower than the last two years, numbering 229 compared with 251 in 1934 and 247 in 1935.

Number of Breeds.—The classification in 1936 provided for twelve distinct breeds, and all but one, the Devon breed, were represented at the show.

Highest Points gained in the Milking Trials.—The highest points this year were in excess of 200 and although not a record was a very creditable performance. The animal was the British Friesian cow " Terling Contented 26th " (No. 101), owned by Lord Rayleigh's Farms, whose points totalled 208.65.

Highest Yield of Milk.—The highest yield of milk, 86.45 lbs., was given by Mr. Stuart Paul's Red Poll cow " Kirton Sundial " (No. 192).

Disqualifications.—The number of animals disqualified from all competitions at the 1936 Show owing to their milk failing to attain the presumptive minimum standards of 3.0 per cent. of fat and 8.5 per cent. of non-fatty solids at one milking was five, comprising two Dairy Shorthorns and three British Friesians.

Ineligibility for award owing to the fat content of the milk given at the three milkings falling below 3 per cent. applied to four animals—three British Friesians and one Kerry.

The points gained by the disqualified animals and those ineligible for an award have been included in the calculations of the averages for their respective classes in Tables I., II., III., V. and VI.

Standard Points.—For some years past it has been evident that owing to the improvement in the performance of some of the breeds, the standard points were due for revision and it is gratifying to note that the Council of the British Dairy Farmers' Association have carried out this revision so that the class standard points are now as follows :—

Breed	*Cows over 5 years old.*	*Cows* 3-5 *years.*	*Heifers.*
Pedigree Dairy Shorthorn	115 (100)	95.8 (83.3)	76.7 (66.7)
Non-Pedigree do.	115 (110)	—	76.7 (73.3)
Lincolnshire Red ...	100 (100)	—	66.7 (66.7)
British Friesian ...	120 (110)	100 (91.7)	80.0 (73.3)
South Devon ...	110 (100)	91.7 (83.3)	73.3 (66.7)
Devon	85 (90)	—	—
Red Poll	100 (100)	83.3 (83.3)	66.7 (66.7)
Welsh Black	85 (90)	—	—
Ayrshire	115 (100)	95.8 (83.3)	76.7 (66.7)
Guernsey	100 (85)	83.3 (70.8)	66.7 (56.7)
Jersey	95 (90)	79.2 (75.0)	63.3 (60.0)
Kerry	80 (80)	—	53.3 (53.3)
Dexter...	65 (70)	—	43.3 (46.7)

The figures in brackets are the old standards.

Burroughs' Adding Machines.—The Milking Trial Judges and staff were again assisted in the calculations by Messrs. Burrough's Adding Machines, Ltd., who kindly loaned two electric calculating machines and arranged for two highly skilled operators to attend the show to undertake the necessary calculations. This assistance enabled the judges to complete the class awards in the Milking Trials so that they were available soon after the opening of the show on Tuesday. When it is realised that the final weighing of the milk is not completed until late on Monday night it seems difficult to imagine how the results can be arrived at sooner.

NOTES ON CLASSES 1 TO 30.

Class 1. *Pedigree Dairy Shorthorn Cow over* 5 *years old.*—Entries 14; present 9. The first prize in this class was awarded to "Steppingley Clover's Gift 4th" (No. 10), owned by Messrs. A. Brittain & Sons, with 175.77 points. This animal was the first prize winner in this class last year. The second prize went to "Chevet Daygirl" (No. 11), owned by Mr. F. Chapman, with 149.68 points. The third prize was awarded to Mr. J. W. G. Cronk's cow "Silverstream Ringlet 5th" (No. 8) with 140.25 points.

Class 2. *Pedigree Dairy Shorthorn Cow over* 3 *and under* 5 *years old.*—Entries 21; present 12. The entries in this class were lower than last year and the number present was also much less. Four prizes were awarded. The first prize was secured by Mr. John McMenemy's cow "Parkhouse Strawberry 16th" (No. 18) with 181.07 points; the second prize went to "Huxham Duchess Rose 7th" (No. 21), owned by Mr. John Day, with 161.21 points. The third prize winner was Mr. J. Pierpont Morgan's cow "Aldenham Wild Queen 18th" (No. 23) with 155.73 points, and the fourth prize went to Captain Arnold S. Wills' "Thornby Foggathorpe 43rd" (No. 35) with 151.75 points; this animal was fourth prize winner in this class last year.

The Desborough Cup is awarded to the Dairy Shorthorn Cow exhibited in Classes 1 and 2 gaining the highest points in the Milking Trials. The cup was awarded this year to the first prize winner of Class 2, namely "Parkhouse Strawberry 16th" (No. 18) owned by John J. McMenemy, and the reserve was last year's winner, "Steppingley Clover's Gift 4th" (No. 10), exhibited by Messrs. A. Brittain & Son.

Class 3. *Pedigree Dairy Shorthorn Heifer.*—Entries 20; present 7. Although the number of entries in this class was an improvement upon last year the number present was very disappointing being even lower than last year. The first prize winner was

"Revel's Princess Pearl" (No. 42), owned by Mr. W. H. Vigus, with 113.30 points. The second prize went to "Fothering Blush Rose" (No. 38), exhibited by Mr. C. J. Allday, with 105.01 points, and the third prize to Captain Arnold S. Wills' "Thornby Barrington Duchess 9th" (No. 53) with 104.85 points.

Class 4. *Non-Pedigree Dairy Shorthorn Cow.*—Entries 10; present 4. The first prize was awarded to "Lodge Snowdrop" (No. 60), owned by Mr. J. W. Shirley, with 167.04 points; the second prize went to Mr. H. Brazier's cow "Melody" (No. 58), with 141.86 points, and the third to Mr. W. H. Nelson's cow "Betty" (No. 59), with 126.06 points.

Class 5. *Non-Pedigree Dairy Shorthorn Heifer.*—Entries 11; present 6. The first prize was secured by "Mary" (No. 69), owned by Mr. W. H. Nelson, with 122.31 points, whilst "Poppy" (No. 74), exhibited by Messrs. J. & H. Jackson, with 107.42 points secured second prize, and "June" (No. 73), also exhibited by Messrs. J. & H. Jackson, gained third prize with 100.07 points.

The Melvin Perpetual Challenge Cup is a new trophy this year and is awarded to the owner of the Dairy Shorthorn Cow or Heifer entered in Coates' Herd Book or in the Grading Register gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests, the points to be calculated as for the Spencer Challenge Cup. Animals eligible to compete for this cup must have been bred by the owner. This cup was awarded to Mr. John Day's cow "Huxham Duchess Rose 7th" (No. 21), and the reserve was Mr. C. J. Allday's cow "Fothering Foggathorpe 2nd" (No. 20).

An Extra Prize of £25 is offered by the Shorthorn Society for the Dairy Shorthorn Cow or Heifer, pedigree or registered non-pedigree gaining most points on Inspection, in the Milking Trials and Butter Tests, the points to be calculated as for the Spencer Challenge Cup. The winner of this prize was also "Huxham Duchess Rose 7th" (No. 21), owned by Mr. John Day, and the reserve was Mr. J. W. Shirley's cow "Lodge Snowdrop" (No. 60).

An Extra Prize of £10 is offered by the Shorthorn Society for the cow exhibited in Class 4 and entered, or accepted for entry, in the Grading Register of the Shorthorn Society, gaining most points on Inspection and in the Milking Trials. The first animal in each section (Inspection and Milking) to count 10 points; second 8 points; third 6 points; fourth 4 points; fifth 3 points; sixth 2 points; seventh 1 point. In the event of two or more animals gaining the same number of points the prize will be awarded to the animal judged to be the best on inspection. The winner of this prize was Mr. W. H. Nelson's cow " Betty " (No. 59) and the reserve was " Melody " (No. 58), owned by Mr. H. Brazier.

Class 6. *Lincolnshire Red Shorthorn Cow.*—Entries 14; present 9. The first prize was awarded to " Histon Acacia 5th " (No. 77), owned by Messrs. Chivers & Sons, Ltd., with 190.38 points; the second prize was secured by Messrs. John Evens & Sons' cow " Burton Venetia 2nd " (No. 86), gaining 142.63 points, and the third prize by " Histon Dairymaid 65th " (No. 80), owned by Messrs. Chivers & Sons, Ltd., with 134.29 points. " Histon Acacia 5th " (No. 77) was the winner of the B.D.F.A. Supreme Individual Championship Trophy and also the Spencer Challenge Cup.

Class 7. *Lincolnshire Red Shorthorn Heifer.* Entries 8; present 6. The first prize was gained by Mr. F. Russell Wood's animal " Bendish Nancy 34th " (No. 93), with 119.86 points which, whilst not a record, is a very good total. The second prize was awarded to Messrs. John Evens & Sons' " Burton Young Cherry 26th " (No. 97), gaining 114.96 points, and the third prize went to Mr. F. Sainsbury's " Wratting Sensation " (No. 92), with 110.77 points.

Class 8. *British Friesian Cow over* 5 *years old.*—Entries 26; present 11. The number of animals present in this class was again low, but the performance showed a little improvement on last year, the average points rising to 158.97. Two animals were ineligible for an award on account of their fat being below standard at all three milkings, and one animal was disqualified for poor quality of milk. The first prize was won by " Terling Contented 26th " (No. 101), exhibited by Lord Rayleigh's Farms, gaining the splendid total of 208.65 points which, although not a record, has only been exceeded twice. The second prize was awarded to " Lavenham Annie 29th " (No. 110), exhibited by Messrs. Strutt & Parker (Farms), Ltd., with 174.17 points, and the third prize to " Lavenham Chancery 3rd " (No. 108), also exhibited by Messrs. Strutt & Parker (Farms), Ltd., which gained 172.49 points. " Terling Contented 26th " (No. 101) was the winner of the Barham Challenge Cup and reserve for the B.D.F.A. Supreme Individual Championship Trophy and the Shirley Challenge Cup.

Class 9. *British Friesian Cow over* 3 *and under* 5 *years old.*—Entries 17; present 11. The first prize in this class was won by Mr. F. W. Gilbert's cow " Saundby Wild Rose 2nd " (No. 135), with 192.47 points, which is a record for this class. The points—181.00—of the second prize winner " Henton Blossom " (No. 140), owned by Mr. H. C. Alexander, were also higher than any for the last ten years as reference to Table IV. will show. The third prize went to

Lord Rayleigh's cow "Terling Lead 42nd" (No. 125), with 178.35 points. This cow was the third prize winner in this class last year, but her score was only 133.66. Mr. F. W. Gilbert's cow "Saundby Wild Rose 2nd" (No. 135), was also reserve for the Barham Challenge Cup.

Class 10. *British Friesian Heifer.*—Entries 11; present 9. Whilst the average points gained by this class were an improvement on last year the quality of the milk of some of the competitors was poor, resulting in two disqualifications, and one case where the fat fell below standard at all milkings tested. The first prize was secured by Messrs. Hodge Bros.' heifer, "Fintloch Ida" (No. 146), with 140.37 points, which is a record for at least ten years; the second prize went to Mr. Cecil Ball's "Oakham Dazzle" (No. 143), with 132.86 points and the third to "Wintersell Dainty 8th" (No. 151), owned by Mrs. F. Downing, with 120.59 points.

Class 11. *South Devon Cow over* 5 *years old.*—Entries 4; present 3. Although the number present was low the average points gained was the highest for ten years, as will be seen upon reference to Table III. The first prize was won by Mr. Walter Hunt's cow "Tracey's Milkmaid 5th" (No. 153), with 189.72 points; the second prize by Mr. George Wills' cow "Milkmaid 3rd" (No. 156), with 168.37 points, and the third prize by "Dartington Lassie" (No. 155), exhibited by Messrs. Dartington Hall, Ltd., with 148.04 points. "Tracey's Milkmaid 5th" (No. 153) was also reserve for the Spencer Challenge Cup, and "Milkmaid 3rd" (No. 156) once again won the Morrison Challenge Trophy.

Class 12. *South Devon Cow over* 3 *years and under* 5 *years old.*—Entries 6; present 5. Further records were created in this class this year for the average points gained by the class exceeded the record average of last year. The first prize winner, "Dartington Dairymaid" (No. 158), owned by Messrs. Dartington Hall, Ltd., with 164.29 points beat the previous year's figure of 162.15 points, which was a record. The second prize was awarded to Mr. George Wills' cow "Rydon Milkmaid 7th" (No. 157), with 144.87 points and the third prize to "Dartington Cowslip" (No. 159), exhibited by Messrs. Dartington Hall, Ltd., with 137.56 points.

A Silver Challenge Cup presented by the South Devon Herd Book Society is given to the owner of the cow gaining the greatest number of points on Inspection (as ascertained under the Spencer Cup conditions, see page 165) in the Milking Trials and Butter Tests. The winner was "Tracey's Milkmaid 5th" (No. 153), owned by Mr. Walter Hunt, with 307.47 points, and the reserve Mr. George Wills' cow "Milkmaid 3rd" (No. 156), with 280.12 points.

Class 13. *South Devon Heifer.* Entries 6; present 4. The competition in this class was very keen. The first prize was won by "Windsor Alma 2nd" (No. 165), owned by Mr. John T. Dennis, with 109.73 points; the second prize by Mr. George Wills' heifer "Rydon Milkmaid 9th" (No. 163), with 109.02 points, and the third prize by "Dartington Primula" (No. 167), owned by Messrs. Dartington Hall, Ltd., with 101.71 points.

Class 14. Cancelled.

The Busk Challenge Cup, which is a trophy for Devon Cows, was not awarded this year as no cows of this breed were entered for the show.

Class 15. *Red Poll Cow over* 5 *years old.* Entries 15; present 12. Both the entries and the number present were lower than last year, but although no records were established, the performance was reasonably satisfactory and the competition keen. Four prizes were awarded. The first prize was secured by "Morston Girl 14th" (No. 176), owned by Colonel H. E. Hambro, with 158.12 points, the second prize by Mr. Stuart Paul's cow "Holton Rainbow 6th" (No. 182), with 149.36 points, the third prize by "Mistley Amethyst" (No. 179), exhibited by Messrs. Brooks (Mistley), Ltd., with 147.46 points, and the fourth prize by "Eastwell Marshmallow" (No. 174), owned by Mrs. H. D. Lewis, with 146.34 points.

Class 16. *Red Poll Cow over* 3 *years and under* 5 *years old.*—Entries 12; present 9. The performance in this class was higher than for some years past and a record was established by the first prize winner, Mr. Stuart Paul's cow "Kirton Sundial" (No. 192), with 187.23 points. The second prize was gained by "Yoxford Maiden 3rd" (No. 185), owned by Sir Guy Hambling, with 150.80 points and the third prize by "Longford Loafer" (No. 184), owned by the Earl of Radnor, with 144.60 points.

Class 17. *Red Poll Heifer.*—Entries 13; present 6. No records were made in this class but the performance was quite satisfactory on the whole. The first prize was awarded to Capt. F. J. O. Montagu's "Shortgrove Phoebe" (No. 208), with 110.29 points, the second prize to Mr. Stuart Paul's "Kirton Copyist" (No. 203), with 93.62 points, and the third prize to "Wissett Meg" No. (207), owned by Mr. W. Scrimgeour, with 89.88 points.

The Thornton Cup is awarded to the owner of the Red Poll Cow or Heifer gaining the greatest number of points on Inspection (as for Spencer Cup, see page 165) in the Milking Trials and the Butter Tests. The Cup was won by "Longford Loafer" (No. 184), owned by the Earl of Radnor, with 232.95 points, and the reserve was Mr. Stuart Paul's "Kirton Sundial" (No. 192), with 231.43 points.

The Red Poll Cattle Society offers five Dual Purpose prizes in each of classes 15, 16 and 17 for the five animals in each class gaining the highest points on Inspection, in the Milking Trials and Butter Tests, these points to be awarded on the following scale of points :—Inspection : 1st 10, 2nd 8, 3rd 6, 4th 4, 5th 2. Milking Trials : 1st 10, 2nd 8, 3rd 6, 4th 4, 5th 2. Butter Test : 1st 8, 2nd 6, 3rd 4, 4th 2, 5th 1. When the awarding of the prizes was considered by the judges it was evident that the intentions of the Society might not be realised, for with so few points to deal with, several animals might obtain the same number. This proved to be the case. Moreover, another possibility which had been overlooked was that some of the animals would not be entered for the Butter Tests. The Judges had no means of knowing whether such animals would have attained class standard in this test, and, as no trophy or award can be given unless the standards for Milking Trials and Butter Test are reached, such animals were not eligible for any of these prizes. Whilst this factor affected several animals in classes 15 and 16, no award could be made in class 17 as none of the animals present competed in the Butter Tests.

The Prizes awarded were as follows :—

Class 15.

				Owned by
Equal	1st Prize	No. 170	"Grundisburgh Wander Duck"	Lord Cranworth
	,, ,,	,, 174	"Eastwell Marshmallow"	Mrs. H. D. Lewis
	,, ,,	,, 179	"Mistley Amethyst" ...	Brooks (Mistley), Ltd.
	4th ,,	,, 182	"Holton Rainbow 6th"...	Mr. Stuart Paul
	5th ,,	,, 169	"Longford Ruby 7th" ...	The Earl of Radnor

Class 16.

				Owned by
	1st Prize	No. 184	"Longford Loafer" ...	The Earl of Radnor
	2nd ,,	,, 192	"Kirton Sundial" ...	Mr. Stuart Paul
	3rd ,,	,, 185	"Yoxford Maiden 3rd"...	Sir Guy Hambling
Equal	4th ,,	,, 193	"Kirton Oaken" ...	Mr. Stuart Paul
	4th ,,	,, 194	"Brightwell Prue 4th"	Lady Loder

Class 17. No awards.

As the awarding of these prizes was so unsatisfactory, no doubt the Society will revise the conditions so that in future the results may be more in accordance with their intentions.

Class 18. *Welsh Black Cow.*—Entries 8 ; present 2. Although the entries were the same as last year, the number of animals present was disappointing and only two prizes could be awarded. The first prize went to "Grace" (No. 212), owned by the Hon. Lady Shelly Rolls, with 155.22 points, and the second prize to "Snowdon Fuchsia" (No. 215), exhibited by the University College of North Wales, with 104.90 points.

Class 19. *Ayrshire Cow over* 5 *years old.*—Entries 27 ; present 16. Both the entries and the numbers in this class were greater than last year so that five prizes were awarded. The performance was very satisfactory as only one animal lost points for quality which lowered its score below the new standard. The first prize was won by Mr. John Baird's cow "Birnieknowe Adelaide" (No. 220), with 178.71 points, the second prize by Mr. D. Mackay's cow "Blackbyres Princess 3rd" (No. 234), with 174.19 points, the third prize by "Logan Mains Trim 3rd" (No. 236), owned by Messrs. J. & J. McIntyre, with 172.30 points, the fourth prize by Mr. M. Hastings' cow "North Boig Bonnie Betty" (No. 217), with 171.06 points, and the fifth prize by Mr. James Turner's cow "Loaninghead Pansy 2nd" (No. 238), with 168.60 points. From these results it will be observed that the competition was very close as only ten points separated the first from the fifth prize winners. Mr. A. Barclay's cow "Compton Rosetta" (No. 241) was reserve for the Breeders Milk Challenge Trophy.

Class 20. *Ayrshire Cow over* 3 *years and under* 5 *years old.*—Entries 18 ; present 9. The average for the class was a little below last year's figure, but no points were lost for quality and all animals attained class standard. The first prize was awarded to "Eshott Quicksilver" (No. 246), exhibited by Messrs. Eshott Pedigree Stock Farms, with 159.75 points, which is slightly higher than last year's winner and is a record for this new class. The second prize was won by Mr. James Turner's cow "Loaninghead Lady Emblem" (No. 250), with 147.68 points, and the third prize by Mr. D. Mackay's cow "Mackay's Princess Royal 2nd" (No. 259), with 145.48 points.

Class 21. *Ayrshire Heifer.*—Entries 19 ; present 11. The average for this class was again high and a new record was created. All the animals attained class standard in spite of one losing ten points for poor fat. The first prize was won by Mr. A. Murray's "Kilfillan Stella" (No. 279), with 122.73 points, the second prize by Messrs. W. & J. Logan's "Barton Marigold" (No. 271), with 122.03 points, and the third prize by Mr. David Clark's "Iles Nora 2nd," (No. 263), with 121.90 points. The competition in this class was indeed keen as there was less than one point between the prize winners.

The Rowallan Cup is awarded to the owner of the Ayrshire Cow or Heifer registered or eligible for registration with a number in the Ayrshire Cattle Herd Book, gaining the greatest number of points on Inspection, in the Milking Trials and the Butter Tests. Points for Inspection to be awarded to the first six animals in order of merit as follows :—100, 90, 80, 70, 65, 60. In the case of heifers an additional 15 per cent. of the points scored in the Milking Trials and Butter Tests to be added to their totals. The winner was Mr. M. Hastings' cow " North Boig Bonnie Betty " (No. 217), with 319.06 points, and the reserve was Mr. D. Mackay's " Blackbyres Princess 3rd " (No. 234), with 317.69 points.

Class 22. *Guernsey Cow over* 5 *years old.*—Entries 8 ; present 7. The performance of the class was well up to standard but no records were made. The first prize was awarded to " Dairymaid of Riduna " (No. 282), owned by Mr. Carl Holmes, with 149.27 points, the second prize to Capt. H. J. Pilbrow's cow " Valence Lavender 2nd " (No. 284), with 139.64 points, and the third prize to Mr. E. H. Lane's " Starless 4th of Ville Amphrey " (No. 283), with 132.03 points.

Class 23. *Guernsey Cow under* 5 *years old which has produced two or more calves.* Entries 13 ; present 8. The average for this class was a record and the first prize winner " Bella's Cora 4th of Les Jetteries " (No. 297), owned by the Hon. A. E. Guinness, with 184.41 points, created a record score. The second prize was awarded to Mr. H. A. Y. Dyson's " Primrose Poltimore of Payhay " (No. 295), with the excellent total of 155.65 points and the third prize went to Mr. Carl Holmes' " Rosey of Goodnestone 62nd " (No. 290), with 142.48 points. The first prize winner in this class was also reserve for the National Milk Challenge Cup.

Class 24. *Guernsey Heifer which has produced her first and only calf at or under the age of* 2 *years and* 9 *months.* Entries 4 ; present 4. The number of entries in this class was very low, but fortunately all the animals were present, and, while nothing outstanding was achieved, a satisfactory level was maintained. The first prize winner was Mr. C. Norman's " Spring Beauty of Trepieds " (No. 305), with 124.21 points ; the second prize was awarded to Mr. Carl Holmes' " Bella of Clover Top " (No. 302), with 110.18 points and the third prize to the Hon. A. E. Guinness' " Cyrene's Hope 3rd of the Rouvets " (No. 304), with 91.80 points.

The Stagenhoe Cup is awarded to the owner of the Guernsey Cow or heifer gaining the greatest number of points for Inspection as for the Spencer Cup (see page 165), in the Milking Trials and Butter Tests. This cup was won by the Hon. A. E. Guinness' " Bella's Cora 4th of Les Jetteries " (No. 297), with 299.31 points, the reserve being Mr. H. A. Y. Dyson's " Primrose Poltimore of Payhay " (No. 295), with 246.90 points.

Class 25. *Jersey Cow over* 5 *years.*—Entries 30 ; present 18. In spite of the large increase in entries, the number present only exceeded that of last year by four. The class put up a very fine performance for the average points attained a record, and all the animals earned more than 100 points. Sir John B. Lloyd's cow "Broom" (No. 307), won first prize with the excellent total of 157.04 points ; the second prize was awarded to "Kafovite" (No. 312), exhibited by Ovaltine Dairy Farm, with 149.25 points, the third prize to Mrs. R. M. Foot's cow "White Hill Happy May" (No. 314), with 164.19 points, the fourth prize to J. W. McCallum's "Pearcelands Eileen 10th" (No. 324), with 139.92 points, and the fifth prize to "Playmate of Oaklands" (No. 310), exhibited by Ovaltine Dairy Farm, with 133.93 points. Mrs. R. M. Foot's "White Hill Happy May" (No. 314), won the Breeders' Milk Challenge Trophy with 162.90 points.

Class 26. *Jersey Cow under* 5 *years old and which has produced two or more calves.*—Entries 25 ; present 14. Both the entries and the number present in this class were more than double those of last year and the performance was high, only one animal falling below the class standard of 79.2 points. The first prize was easily won by Mrs. Henry Hawkins' "Empire Mary" (No. 346), with 137.80 points ; the second prize went to Miss G. M. Yule's "Wotton Belinda" (No. 345), with 119.63 points, and the third prize to Mr. W. A. White's "Kingston Golden Blush" (No. 352), with 118.83 points. Mrs. Henry Hawkins' "Empire Mary" (No. 346) also won the National Milk Challenge Cup.

Class 27. *Jersey Heifer which has produced her first and only calf at or under* 2½ *years.*—Entries 23 ; present 11. Whilst no records were made in the class the average was well maintained and all the animals were above the new class standard. The first prize was awarded to Mr. Grosvenor Berry's "Starting Silver 3rd" (No. 366), with 112.06 points ; the second prize was gained by Mr. A. S. Lockwood's "Normanby King's Arum Lily" (No. 370), with 103.95 points, and the third prize by Mr. M. F. North's "Light Bonnie" (No. 377), with 96.83 points.

The Blythwood Production Challenge Bowl is awarded to the owner of the Jersey cow or heifer gaining the greatest number of points in the Milking Trials and Butter Tests provided that the animal has been bred in Great Britain or Ireland. The winner of the trophy was Mr. J. W. McCallum's "Pearcelands Eileen 10th" (No. 324), with 198.67 points, and the reserve was Mr. S. S. Lockwood's "Normanby Chloe" (No. 322), with 198.49 points.

The Loxwood Jubilee Cup is awarded to the owner of the Jersey Cow or Heifer obtaining the greatest number of points for Milk, Butter, Lactation and Inspection. The points were awarded as follows :—1 for every pound of milk, taking the average of two day's yield ; 1 for every ounce of butter ; 20 for first Inspection Prize ; 16 for 2nd ; 12 for 3rd ; 8 for 4th ; 5 for 5th ; 3 for 6th. One point for every ten days since calving deducting the first forty days, with a maximum of 12 points. The average Butter Fat to be not less than 4.5%. The winner of the cup was Sir John B. Lloyd's "Dreaming Fleckie Lass" (No. 306), with 128.15 points, the reserve being Mrs. Henry Hawkins' "Empire Mary" (No. 346), with 122.80 points.

Class 28. *Kerry Cow.*—Entries 5 ; present 4. The points gained by this class was very poor, only two prizes being awarded as the other two animals were below class standard. The first prize was awarded to Miss H. G. B. Bowen-Colthurst's "Summerhill Tricia 2nd" (No. 387), with 111.15 points, and the second prize to Lt.-Col. J. A. Innes' "Ard Caein Doe" (No. 384), with 94.45 points.

Class 29.—*Kerry Heifer.*—Cancelled.

Class 30. *Dexter Cow.*—Entries 5 ; present 4. The average this year was an improvement upon last year and all the animals were above class standard. The first prize was won by "Grinstead Nightingale 3rd" (No. 389), owned by Lady Loder, with 98.16 points ; the second prize by "Grinstead Dollie 2nd" (No. 391), owned by Comtesse Elizabeth de Pret Roose, with 93.27 points, and the third by Mrs. Humphrey R. Pelly's cow "The Witch" (No. 392), with 74.41 points.

The Loder Cup is awarded to the owner of the Dexter Cow or Heifer gaining the most points for Inspection (as for the Spencer Cup, see page 165), in the Milking Trials and Butter Tests. This cup was won by Lady Loder's "Grinstead Nightingale 3rd" (No. 389), with 179.16 points, and the reserve was the Comtesse Elizabeth de Pret Roose's "Grinstead Dollie 2nd" (No. 391), with 175.42 points.

Class 31. *Dexter Heifer.*—Cancelled.

NOTES ON CLASSES 32 TO 39.

The above classes are for the progeny of bulls and the awards are made solely on the basis of the performance of two animals, the progeny of each bull.

Each animal must attain the standard of the class in which she is exhibited to be eligible to compete and the awards are given on the total points gained above the respective class standard of each animal.

Class 32. *Progeny of Dairy Shorthorn Bull.*—Entries 6; present 3. The first prize was won by the progeny of "Loobagh Dreadnought 13th" (224619), namely "Aldenham Barrington Lass 7th" (No. 6) and "Aldenham Wild Queen 18th" (No. 23), with a total of 72.95 points. These animals were exhibited by Mr. J. Pierpont Morgan. The second prize went to the progeny of "Histon Royalist Darlington" (223800), namely "Aldenham Kirklevington Lady 6th" (No. 22) and "Aldenham Barrington 11th" (No. 39), totalling 66.97 points, also exhibited by Mr. Pierpont Morgan. The third prize was won by "Revels Grand Duchess 4th" (No. 41) and "Revels Gwenda" (No. 43), the property of Mr. W. H. Vigus, with a total of 43.08 points; these animals are the progeny of the bull "Orfold Wild Boy 2nd" (246145),

The following table illustrates the method of calculation —

Progeny of	Catalogue No.	Class.	Milking Trial Points.	Class Standard.	Points above Class Standard.	Total.	Award.
Loobagh Dreadnought 13th	6	1	128.02	115	13.02	72.95	1st
	23	2	155.73	95.8	59.93		
Histon Royalist Darlington	22	2	139.38	95.8	44.58	66.97	2nd
	39	3	99.09	76.7	22.39		

Class 33. *Progeny of Lincolnshire Red Shorthorn Bull.*—Entries 4; present 1. The first and only prize awarded in this class went to the progeny of the bull "Bendish Dairy King" (23463). The two animals, exhibited by Messrs. Chivers & Sons, Ltd., were "Histon Acacia 5th" (No. 77) and "Histon Dairy Maid 69th" (No. 78) and totalled 109.84 points.

Class 34. *Progeny of British Friesian Bull.*—Entries 6; present 1. The first and only prize in this class was awarded to "Oakham Dolce" (No. 129) and "Oakham Dazzle" (No. 143), with a score of 113.33 points. These animals were exhibited by Mr. Cecil Ball and are the progeny of the bull "Saundby Endymion" (36499).

Class 35. *Progeny of Red Poll Bull.*—Entries 4; present 2. Both pairs present received an award, the first prize going to the progeny of the bull "White Hill Cub Hunter" (15166), namely "White Hill Charming Delight" (No. 181) and "White Hill Charming Rose" (No. 189), totalling 55.51 points. These animals were exhibited by Mrs. R. M. Foot. The second prize was secured by the progeny of the bull "Morston Count 2nd" (16212), namely "Kirkton Oaken" (No. 193) and "Kirton Copyist" (No. 203), with a score of 30.43 points. These animals are owned by Mr. Stuart Paul.

Class 36. *Progeny of Ayrshire Bull.*—Entries 5; present 1. The pair of animals present were awarded first prize, "Beauchamps Anita" (No. 267) and "Beauchamps Azure" (No. 268), with a total of 12.59 points. They are the progeny of the bull "Meadowbank Attraction" (33451) and are owned by Mr. J. M. Logan.

Class 37. *Progeny of Guernsey Bull.*—No. entries.

Class 38. *Progeny of Jersey Bull.*—Entries 4; present 2. The first prize winners in this class were "White Hill Dairylike Deauvillaise" (No. 381) and "White Hill Dairylike Beauty" (No. 383), with a score of 42.23 points. They are the progeny of "White Hill Dairyman" (17447) and were exhibited by Mrs. R. M. Foot. The second prize was awarded to the animals "Spetchley Emerald" (No. 356) and "Spetchley Flapper" (No. 379), with a total score of 29.60 points. They are the progeny of the bull "Henbury Meteor" (17186) and were exhibited by Mr. R. G. Berkeley.

Class 39. *Progeny of any other Dairy Breed.*—Entries 2; present 2. The only breed in this class this year was the South Devon and both pairs of animals qualified for prizes. The first prize went to the progeny of the South Devon bull "Charlton No. 55" (12416) and were exhibited by Mr. George Wills. The two animals were "Rydon Milkmaid 7th" (No. 157) and "Rydon Milkmaid 9th" (No. 163), with a total of 88.89 points. The second prize was awarded to the progeny of the South Devon bull "Jeff Champion" (13084) and were exhibited by Messrs. Dartington Hall, Ltd. These two animals were "Dartington Cowslip 1st" (No. 159) and "Dartington Primula" (No. 167), with a score of 74.27 points.

CHALLENGE CUPS AND TROPHIES

Open to all Breeds.

1. *The British Dairy Farmers' Association Supreme Individual Championship Trophy.*—This trophy, the highest and most important award which can be won by an individual animal at the show, is awarded to the owner of the cow gaining the greatest number of points on Inspection, in the Milking Trials and in the Butter Tests, provided that during the trials the milk analysed contains not less than 3% of fat and 8.5% of solids not fat.

After the Milking Trial and Butter Test figures are published a Breed Society may then select not more than two animals of its respective breed from the cow classes to parade before the Inspection Judge. The animals selected must have received points in the Milking Trial and Butter Test in excess of their class standard.

The judging for the Inspection points was carried out at the 1936 Show by Mr. W. Wilkins who was required by the conditions to award 125 points to the animal he considered best and to the other cows in accordance with his opinion.

Fifteen animals from the following breeds paraded: Dairy Shorthorn (two), Lincoln Red (two), British Friesian (two), Red Poll (two), South Devon (one), Ayrshire (two), Guernsey (two), and Jersey (two), and the following table gives the points awarded :—

Cow.	Points gained in				
Number and Breed.	Milking Trials.	Butter Tests.	Inspection.	Total Points.	Award.
77 Lincoln Red	190.38	79.00	125.00	394.38	Winner
101 British Friesian	208.65	58.55	95.00	362.20	Reserve
234 Ayrshire	174.19	43.50	120.00	337.69	
306 Jersey	157.04	63.55	110.00	330.59	
217 Ayrshire	171.06	58.00	100.00	329.06	
140 British Friesian	181.00	58.00	80.00	319.00	
153 South Devon	189.72	67.75	45.00	302.47	
21 Dairy Shorthorn	161.21	54.70	85.00	300.91	
297 Guernsey	184.41	64.90	40.00	289.31	
18 Dairy Shorthorn	181.07	52.40	55.00	288.47	
295 Guernsey	155.65	46.25	65.00	266.90	
192 Red Poll	187.23	44.20	30.00	261.43	
309 Jersey	117.85	52.50	75.00	245.35	
86 Lincoln Red	142.63	44.75	50.00	237.38	
174 Red Poll	146.34	34.50	35.00	215.84	

The winner of the trophy was the Lincoln Red cow " Histon Acacia 5th " (No. 77), exhibited by Messrs. Chivers & Sons, Ltd., and the reserve was the British Friesian cow " Terling Contented 26th " (No. 101), exhibited by Lord Rayleigh's Farms. This is the first occasion this coveted award has been won by a Lincoln Red cow. Lord Rowallan presented the Trophy in the presence of a very distinguished and enthusiastic gathering.

2. *The Bledisloe Challenge Trophy.*—This trophy is awarded to the Breed Society judged to have the best exhibit of six cows taking into consideration their total points on Inspection and in the Milking Trials.

The six cows were selected by the Breed Societies after the Milking Trial figures were published and were paraded as teams before the Inspection judge, Mr. William Nixon, on the Wednesday afternoon. The Inspection Judge was instructed to award 500 points to the team he considered best and lower points to the other teams in accordance with his opinion.

Eight teams competed for the award. The trophy was awarded to the Ayrshire team with 1,522.24 points and the British Friesian team was reserve with 1,499.83 points.

It is interesting to note that the Ayrshire team won this Trophy last year with 1,446.69 points, so that the points gained by both the winners and the reserve teams are higher this year.

The following table gives the details of each team in order of points gained :—

AYRSHIRE.

No. in Catalogue.	Milking Trial Points.
217	171.06
220	178.71
234	174.19
236	172.30
237	157.52
241	168.46
Total M.T. Points ...	1022.24
Inspection Points ...	500.00
Total	1522.24

WINNING TEAM.

BRITISH FRIESIAN.

No. in Catalogue.	Milking Trial Points.
99	147.19
101	208.65
110	174.17
125	178.35
129	170.47
140	181.00
Total M.T. Points ...	1059.83
Inspection Points ...	440.00
Total	1499.83

RESERVE TEAM.

DAIRY SHORTHORN.

No. in Catalogue.	Milking Trial Points.
10	175.77
18	181.07
20	147.58
21	161.21
23	155.73
60	167.04
Total M.T. Points ...	988.40
Inspection Points ...	475.00
Total	1463.40

RED POLL.

No. in Catalogue.	Milking Trial Points.
176	158.12
182	149.36
179	147.46
185	150.80
174	146.34
192	189.23
Total M.T. Points ...	939.31
Inspection Points ...	390.00
Total	1329.31

SOUTH DEVON.

No. in Catalogue.	Milking Trial Points.
153	189.72
155	148.04
157	144.87
158	164.29
160	132.63
159	137.56
Total M.T. Points ...	917.11
Inspection Points ...	360.00
Total	1277.11

LINCOLN RED.

No. in Catalogue	Milking Trial Points.
77	190.38
80	134.29
85	114.63
86	142.63
87	118.25
89	117.27
Total M.T. Points ...	817.45
Inspection Points ...	450.00
Total	1267.45

JERSEY.		GUERNSEY.	
No. in Catalogue.	Milking Trial Points.	No. in Catalogue.	Milking Trial Points.
306	157.04	284	139.64
309	117.85	289	119.68
310	133.93	290	142.48
312	149.25	291	123.61
322	133.24	295	155.65
324	139.92	297	184.41
Total M.T. Points ...	831.23	Total M.T. Points ...	865.47
Inspection Points ...	420.00	Inspection Points ...	370.00
TOTAL ...	1251.23	TOTAL	1235.47

A summary of the team results detailed above is given in the following table :—

Breed.	Milking Trial Points.	Inspection Points.	Total.	Award.
Ayrshire	1022.24	500.00	1522.24	Winner
British Friesian	1059.83	440.00	1499.83	Reserve
Dairy Shorthorn	988.40	475.00	1463.40	
Red Poll	939.31	390.00	1329.31	
South Devon	917.11	360.00	1277.11	
Lincoln Red	817.45	450.00	1267.45	
Jersey	831.23	420.00	1251.23	
Guernsey	865.47	370.00	1235.47	

Owing to the unfortunate indisposition of Lord Bledisloe, the Trophy was presented to the President of the Ayrshire Cattle Herd Book Society by Lord Rowallan in the presence of a large and enthusiastic gathering.

3. *The Morrison Challenge Trophy.*—This Trophy is awarded to the owner of the cow exhibited at three consecutive Dairy Shows which gains the greatest number of points at the three shows according to the following scale :— (*a*) the points in the Milking Trials above standard ; (*b*) three times the number of points above class standard in the Butter Tests ; (*c*) Inspection Points as follows : 1st prize 40 ; 2nd prize 30 ; 3rd prize 20 ; 4th prize or reserve 10 points.

Seven animals were eligible and the Trophy was won again by last year's winner, Mr. George Will's South Devon cow " Milkmaid 3rd " (No. 156). This is the third year in succession that " Milkmaid 3rd " has won this award for Mr. George Wills.

The reserve animal was the Guernsey cow " Primrose Poltimore of Payhay " (No. 295), owned by Mr. H. A. Y. Dyson. The points obtained by these two animals were as follows :—

" Milkmaid 3rd."

Year.	No. in Catalogue.	Milking Trial.			Butter Test.			Inspection.	
		Points.	Standard.	Net Points	Points.	Standard.	Net Points	Award.	Points.
1934	173	144.88	83.3	61.58	38.50	28.3	30.60	3rd	20.0
1935	172	149.01	100.0	49.01	45.50	34.0	34.5	1st	40.0
1936	156	168.37	110.0	58.37	71.75	34.0	113.25	3rd	20.0
			Total ...	168.96		Total ...	178.35	Total ...	80.0
					Grand Total ...	...	427.31		

" Primrose Poltimore of Payhay."

Year.	No. in Catalogue.	Milking Trial.			Butter Test.			Inspection.	
		Points.	Standard.	Net Points	Points.	Standard.	Net Points	Award.	Points.
1934	311	113.28	56.70	56.58	34.25	20.0	42.75	3rd	20.0
1935	322	131.91	70.80	61.11	38.25	25.0	39.75	2nd	30.0
1936	295	155.65	83.30	72.35	46.25	25.0	63.75	2nd	30.0
			Total ...	190.04		Total	146.25	Total ...	80.0
					Grand Total ...	...	416.29		

4. *The Barham Challenge Cup.*—This Cup is awarded to the owner of the cow gaining the greatest number of points in the Milking Trials. This year's winner was the British Friesian cow " Terling Contented 26th " (No. 101), owned by Lord Rayleigh's Farms, with 208.65 points ; the reserve was also a British Friesian cow, namely " Saundby Wild Rose 2nd " (No. 135), owned by Mr. F. W. Gilbert, with 192.45 points.

5. *The Spencer Challenge Cup.*—This Cup is awarded to the owner of the cow gaining the greatest number of points in the Milking Trials, Butter Tests and Inspection. The points for Inspection were allotted as follows :—1st prize 50, 2nd prize 45 ; 3rd prize 40 ; 4th place 35 ; 5th place 30 ; 6th place 25 points.

This Cup was won by Messrs. Chivers & Sons, Ltd., Lincolnshire Red cow " Kirton Acacia 5th " (No. 77), with 322.38 points, and the reserve was Mr. Walter Hunt's South Devon cow " Tracey's Milkmaid 5th " (No. 153), with 307.47 points.

6. *The Shirley Cup.*—This Cup is awarded to the owner of the cow giving the greatest average daily weight of milk provided that the milk contains not less than 3% of fat and 8.5% of solids not fat.

The winner of this Cup was Mr. Stuart Paul's Red Poll cow " Kirton Sundial " (No. 192), with 86.45 pounds of milk, and the reserve was the British Friesian cow "Terling Contented 26th," owned by Lord Rayleigh's Farms, with 86.35 pounds of milk. It is interesting to note that only one tenth of a pound of milk was the deciding factor in awarding this Trophy.

7. *The Breeder's Milk Challenge Trophy.*—This Trophy is awarded to the owner of the Cow or Heifer obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight, the lactation points being added. To be eligible for this Trophy the animal must have been bred by the owner and must be stalled with the cattle from licensed herds or must have passed the tuberculin test on or after 1st August, 1936. The winner, for the second year, was the Jersey cow "White Hill Happy May" (No. 314), owned by Mrs. R. M. Foot, with 162.90 points; the reserve was the Ayrshire cow "Compton Rosetta" (No. 241), owned by Mr. A. Barclay, with 156.56 points.

8. *The National Milk Challenge Cup.*—This Cup is awarded to the owner of the cow or heifer obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight, the points for lactation being added.

This Trophy was won by the Jersey cow "Empire Mary" (No. 346), owned by Mrs. Henry Hawkins, with 191.92 points; the reserve was the Guernsey cow "Bella's Cora 4th of Les Jetteries" (No. 297), with 185.89 points.

This year's winner was reserve last year for this Trophy.

9. *The Robert L. Mond Special Prize* is awarded to the owner of two animals the progeny of one registered bull, gaining the greatest number of points in the Milking Trials above class standard (see pages 160 and 161).

This prize was won for Mr. Cecil Ball by his British Friesian cow "Oakham Dolce" (No. 129) and his British Friesian heifer "Oakham Dazzle" (No. 143) with a total of 113.33 points above class standard. These animals are the progeny of the bull "Saundby Endymion."

The reserve went to Messrs. Chivers & Sons, Ltd. for the Lincolnshire Red cows "Histon Acacia 5th" (No. 77) and "Histon Dairymaid 69th" (No. 78), with a score of 109.84 points above Class standard.

A summary of the distribution of the trophies and reserve positions for open competitions among the Breeds for the 1936 Show is as follows:—

Trophy.	*Winner.*	*Reserve.*
1. Supreme Champion	Lincolnshire Red	British Friesian
2. Bledisloe Trophy	Ayrshire	British Friesian
3. Morrison Trophy	South Devon	Guernsey
4. Barham Cup	British Friesian	British Friesian
5. Spencer Cup	Lincolnshire Red	South Devon.
6. Shirley Cup	Red Poll	British Friesian
7. Breeders' Cup	Jersey	Ayrshire
8. National Milk Cup	Jersey	Guernsey
9. Robert L. Mond Prize	British Friesian	Lincolnshire Red

The Record Performance Table for each class introduced four years ago, is given below with such alterations as have been rendered necessary. It is possible that certain errors still exist in this Table and any information of any record incorrectly given will be greatly appreciated.

RECORD PERFORMANCES.

Highest Points gained in the Milking Trials.

Year.	Breed and Class.	Name of Animal.	No. in Catalogue.	Points.
1931	Dairy Shorthorn Cow (over 5 years)	" Orfold Jessie 2nd "	9**	186.78
1936	Dairy Shorthorn Cow (3 to 5 years)	" Parkhouse Strawberry 16th"	18**	181.07
1934	Dairy Shorthorn Heifer	" St. Clere Ruby 6th "	61**	132.75
1931	Dairy Shorthorn Cow (Non-pedigree)	" Maud "	81**	198.35
1936	Dairy Shorthorn Heifer (Non-pedigree)	" Mary "	69**	122.31
1931	Lincolnshire Red Cow	" Wormleighton Daffodil 4th "	103**	195.96
1935	Lincolnshire Red Heifer	" Wratting Cherry 3rd "	101**	126.23
1932	British Friesian Cow (over 5 years)	" Oakham Dainty "	111**	215.30
1936	British Friesian Cow (3 to 5 years)	" Saundby Wild Rose 2nd "	135**	192.47
1936	British Friesian Heifer	" Fintloch Ida "	146**	140.37
1930	South Devon Cow (over 5 years)	" Milkmaid 14th "	181**	198.50
1936	South Devon Cow (3 to 5 years)	" Dartington Dairymaid "	158**	164.29
1932	South Devon Heifer	" Ferry Primula "	186**	114.83
1934	Devon Cow	" Corton Comet "	184**	160.20
1931	Red Poll Cow (over 5 years)	" Henham Lorinda "	185**	177.32
1936	Red Poll Cow (3 to 5 years)	" Kirton Sundial "	192**	187.23
1928	Red Poll Heifer	" Basildon Rosalind "	211**	124.80
1926	Blue Albion Cow	" Elsenham Jessie "	264*	156.80
1935	Welsh Black Cow	" Grace "	249**	169.67
1932	Ayrshire Cow (over 5 years)	" Eglington Juno "	228**	206.10
1936	Ayrshire Cow (3 to 5 years)	" Eshott Quicksilver "	246**	159.75
1935	Ayrshire Heifer	" Bargower Silverbell 14th	282**	145.52
1929	Guernsey Cow (over 5 years)	" Hadham Goldstream 11th "	259*	158.60
1936	Guernsey Cow (3 to 5 years)	" Bella's Cora 4th of Les Jetterics"	297**	184.41
1932	Guernsey Heifer	" Dairy Queen of Clover Top "	260**	137.20
1931	Jersey Cow (over 5 years)	" Lady Spotted Pearl "	300**	177.86
1932	Jersey Cow (3 to 5 years)	" Wotton Early Minx "	279**	138.00
1931	Jersey Heifer	" Fairseat Peggy 2nd "	326**	119.51
1925	Kerry Cow	" Buckland Peace 2nd "	394*	134.20
1929	Kerry Heifer	" Hattingley Ebony "	324**	85.00
1928	Dexter Cow	" Grinstead Taxus "	338*	105.19
1929	Dexter Heifer	" Grinstead Fuchsia 2nd "	335*	63.30

**Milked thrice daily. *Milked twice daily.

RECORD YIELDS OF MILK.

Greatest average yields for two days.—Cows milked thrice daily :—

1929—British Friesian cow "Penshurst Lofty" (No. 124**), 102.65 lbs.

Greatest average yield for two days.—Cows milked twice daily :—

1924—British Friesian cow "Beccles Peggotty" (No. 154*) 85.1 lbs.

Greatest yield of milk at one milking :—

1921—Dairy Shorthorn (non-pedigree) cow "Golden Sovereign" (No. 89*) 47.6 lbs.

The following tables supply valuable information on the performances of the different breeds in their respective classes at the 1936 and preceding Shows.

Table I contains in summarised form the entries, the average live weight, milk yield, fat percentages, and points earned and lost in each class, also the average milk yield and points per 1,000 lbs. live weight.

Table II. shows the number of animals tested, average points gained, number of animals attaining the Association class standard points, and the average live weight of each class at the last three Shows.

Table III. shows the average points in the Milking Trials by each class each year since 1922 and the ten year average.

Table IV. shows the highest points gained in each class in each year since 1926.

Table V. shows the average yield and quality of the milk yielded by each class at the 1936 Show.

Table VI. shows the number of animals yielding milk deficient in fat and solids not fat in each class of each Show since 1926.

For comparative purposes the figures for cows milked twice daily and those milked thrice daily are given separately.

TABLE I.—SHOWING THE PERFORMANCE OF EACH CLASS—1936.

Class.	DESCRIPTION.	Number in Class.		Average Live Weight of Class.	Average Yield of M.lk.	Yield of Milk per 1,000 lbs. Live Weight.	Average Fat,	Animals below Standard for Fat at any Milking.	Animals losing Points for Quality of Milk.	Average Points lost by Class for Quality of milk.	Points per 1,000 lbs. Live Weight.	Average Points gained by Class.	B.D.F.A. Standard Points for Class.
		Entered.	Present in Milking Trials.										
	Cows over 5 years old.			lbs.	lbs.	lbs.	%	%	%				
1	Dairy Shorthorn	14	7	1,449	61.14	42.14	4.16	0	0	0	93.22	135.09	115
4	Ditto Non-pedigree ...	10	4	1,328	71.69	53.99	4.20	25	25	12.5	101.3	134.18	115
6	Lincoln Red Shorthorn	14	9	1,388	59.70	43.01	3.93	11.1	44.4	4.4	91.30	126.73	100
8	British Friesian	26	11	1,461	80.84	55.33	3.65	45.4	45.4	10.9	108.80	158.97	120
11	South Devon	4	3	1,743	76.88	43.87	4.79	33.3	33.3	10.0	95.07	168.71	110
15	Red Poll	15	12	1,255	60.95	48.05	4.32	8.3	8.3	0.8	107.77	135.25	100
18	Welsh Black	8	2	1,226	56.75	46.28	4.58	0	0	0	106.08	130.06	85
19	Ayrshire	27	16	1,136	67.91	59.78	4.30	6.2	12.5	1.2	131.64	149.55	115
22	Guernsey	8	7	1,109	50.35	45.40	5.38	0	0	0	113.17	125.51	100
25	Jersey	30	18	900	48.90	54.33	5.50	5.5	5.5	0.5	139.82	125.84	95
28	Kerry	5	4	966	36.70	37.99	3.58	75.0	75.0	12.5	73.27	70.78	80
30	Dexter	5	4	694	34.34	49.48	4.56	0	0	0	120.67	83.75	65
	Carried forward	166	97										

TABLE I.—SHOWING THE PERFORMANCE OF EACH CLASS—1936.—*Continued.*

Class.	DESCRIPTION.	Number in Class.		Average Live Weight of Class.	Average Yield of Milk.	Yield of Milk per 1,000lbs. Live Weight.	Average Fat,	Animals below Standard for Fat at any Milking.	Animals losing Points for Quality of Milk.	Average Points lost by Class for Quality of milk.	Points per 1,000 lbs. Live Weight.	Average Points gained by Class.	B.D.F.A. Standard Points for Class.
		Entered.	Present in Milking Trials.										
				lbs.	lbs.	lbs.	%	%	%				
	Brought forward	166	97										
	Cows over 3 and under 5 years.												
2	Dairy Shorthorn	21	12	1,350	62.91	46.74	3.91	25.0	33.3	5.8	97.27	131.32	95.8
9	British Friesian	17	11	1,359	70.49	51.86	3.93	27.3	27.3	2.7	109.75	149.15	100
12	South Devon	6	5	1,566	63.01	40.23	4.41	20.0	20.0	2.0	89.24	139.77	91.7
16	Red Poll	12	9	1,171	54.99	46.95	4.12	11.1	22.2	2.2	101.80	119.21	83.3
20	Ayrshire	18	9	1,089	55.49	50.95	5.06	0	0	0	120.67	131.41	95.8
23	Guernsey	13	8	1,068	51.60	48.31	5.42	0	0	0	125.19	133.71	83.3
26	Jersey	25	14	900	43.70	48.55	4.94	7.0	14.3	2.1	118.09	106.28	79.2
	Heifers.												
3	Dairy Shorthorn	20	7	1,066	46.97	44.06	4.15	14.3	14.3	1.4	95.14	101.42	76.7
5	Ditto Non-pedigree ...	11	6	1,042	47.29	45.38	3.97	33.3	33.3	5.0	93.18	97.10	76.7
7	Lincoln Red Shorthorn	8	6	1,198	45.35	38.68	3.62	33.3	33.3	3.3	76.02	91.08	66.7
10	British Friesian	11	9	1,302	56.82	43.64	3.21	55.5	55.5	17.7	75.70	98.57	80.0
13	South Devon	6	4	1,368	42.07	30.75	4.75	0	0	0	72.36	99.00	73.3
17	Red Poll	13	6	1,079	35.83	33.20	4.66	0	0	0	77.92	84.08	66.7
21	Ayrshire	19	11	1,070	47.60	44.48	4.69	9.0	9.0	0.9	101.57	108.68	76.7
24	Guernsey	4	4	937	36.34	38.78	6.62	0	0	0	104.79	98.19	66.7
27	Jersey	23	11	746	33.80	45.30	5.16	0	0	0	115.05	85.83	63.3
	TOTAL	393	229										

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND NUMBER OF COWS ATTAINING THE ASSOCIATION'S STANDARD—1934 TO 1936.

Class.	DESCRIPTION.	B.D.F.A. Standard Points 1934/35	B.D.F.A. Standard Points. 1936.	Number of Cows Tested.			Average Points Gained.			Number and Percentage of Cows above Standard.						Average Live Weight of Class.		
				1934	1935	1936	1934	1935	1936	1934		1935		1936		1934	1935	1936
											%		%		%	lbs.	lbs.	lbs.
1	Dairy Shorthorn Pedigree Cow	100.0	115.0	8	9	7	144.10	139.59	135.09	8	100.0	8	88.9	6	85.7	1,398	1,378	1,449
2	Ditto (3-5 years) ...	83.3	95.8	17	23	12	122.63	122.18	131.32	17	100.0	22	95.6	10	83.3	1,233	1,275	1,350
3	Ditto Heifer	66.7	76.7	20	9	7	90.79	86.51	101.42	17	85.0	8	88.8	7	100.0	1,090	1,099	1,096
4	Ditto Non-pedigree Cow	110.0	115.10	8	6	4	139.33	126.48	134.18	7	87.5	5	83.3	3	75.5	1,343	1,375	1,328
5	Ditto ,, Heifer	73.3	95.8	5	9	6	97.53	88.16	97.10	5	100.0	7	77.8	5	83.3	995	1,119	1,042
6	Lincoln Red Shorthorn Cow	100.0	100.0	3	11	9	103.68	121.34	126.73	2	66.6	9	81.8	8	88.8	1,417	1,406	1,388
7	Ditto Heifer	66.7	66.7	4	8	6	104.77	96.70	91.08	4	100.0	8	100.0	5	83.3	1,172	1,163	1,198
8	British Friesian Cow ...	110.0	120.0	12	9	11	163.18	151.31	158.97	11	91.6	8	88.9	10	90.9	1,443	1,373	1,461
9	Ditto (3-5 years) ...	91.7	100.0	6	9	11	145.79	127.11	149.15	6	100.0	8	88.9	11	100.0	1,349	1,250	1,359
10	Ditto Heifer	73.3	80.0	6	9	9	91.22	86.62	98.57	5	83.3	5	55.6	6	66.6	1,106	1,214	1,302
11	South Devon Cow ...	100.0	110.0	6	5	3	134.81	126.68	168.71	6	100.0	4	80.0	3	100.0	1,519	1,689	1,743
12	Ditto (3-5 years) ...	83.3	91.7	5	5	5	132.25	134.96	139.77	5	100.0	5	100.0	5	100.0	1,599	1,514	1,566
13	Ditto Heifer	66.7	73.3	5	3	4	100.04	92.23	99.00	5	100.0	2	66.7	4	100.0	1,322	1,395	1,368
14	Devon Cow	90.0	85.0	4	4	—	111.13	107.39	—	2	50.0	2	50.0	—	—	1,498	1,481	—
15	Red Poll Cow	100.0	100.0	12	17	12	138.76	124.30	135.25	11	91.6	13	76.5	12	100.0	1,223	1,242	1,255
16	Ditto (3-5 years) ...	83.3	83.3	9	9	9	108.75	112.91	119.21	7	77.8	7	77.8	9	100.0	1,109	1,193	1,171
17	Ditto Heifer	66.7	66.7	13	11	6	82.01	91.72	84.08	10	76.9	10	90.1	5	83.3	1,036	1,052	1,079

N.B.—The whole of the above figures are based on cows milked thrice daily.

TABLE II.—SHOWING NUMBER OF COWS TESTED, AVERAGE POINTS GAINED AND NUMBER OF COWS ATTAINING THE ASSOCIATION'S STANDARD—1934 TO 1936.—*Continued.*

Class.	DESCRIPTION.	B.D.F.A. Standard Points 1934/35	B.D.F.A. Standard Points. 1936.	Number of Cows Tested.			Average Points Gained.			Number and Percentage of Cows above Standard.						Average Live Weight of Class.		
				1934	1935	1936	1934	1935	1936	1934		1935		1936		1934	1935	1936
											%		%		%	lbs.	lbs.	lbs.
18	Welsh Black Cow	90.0	85.0	4	6	2	98.52	110.11	130.06	2	50.0	4	66.7	2	100.0	1,203	1,268	1,226
19	Ayrshire Cow	100.0	115.0	14	9	16	151.15	149.60	149.55	13	92.8	9	100.0	15	93.7	1,227	1,240	1,136
20	Ditto (3-5 years) ...	83.3	95.8	—	7	9	—	141.25	131.41	—	—	7	100.0	8	88.8	—	1,154	1,089
21	Ditto Heifer	66.7	76.7	18	13	11	105.41	106.39	108.68	17	94.4	13	100.0	11	100.0	1,052	1,106	1,070
22	Guernsey Cow	85.0	100.0	8	8	7	112.54	112.74	125.51	8	100.0	8	100.0	7	100.0	1,028	1,145	1,109
23	Ditto (3-5 years) ...	70.8	83.3	4	9	8	102.70	107.30	133.71	4	100.0	9	100.0	8	100.0	1,074	1,031	1,068
24	Ditto Heifer	56.7	66.7	10	5	4	92.79	100.20	98.19	10	100.0	5	100.0	3	75.0	923	932	937
25	Jersey Cow	90.0	95.0	12	14	18	116.09	122.70	125.84	12	100.0	14	100.0	18	100.0	922	969	900
26	Ditto (3-5 years) ...	75.0	79.2	16	6	14	109.33	107.92	106.28	16	100.0	6	100.0	13	92.9	879	933	900
27	Ditto Heifer	60.0	63.3	6	10	11	87.51	89.67	85.83	6	100.0	10	100.0	10	90.9	806	750	746
28	Kerry Cow	80.0	80.0	9	—	4	102.21	—	70.78	9	100.0	—	—	2	50.0	881	—	966
29	Ditto Heifer	53.3	53.3	3	—	—	62.65	—	—	2	66.6	—	—	—	—	862	—	—
30	Dexter Cow	70.0	65.0	4	4	4	89.03	77.76	83.75	4	100.0	3	75.0	4	100.0	757	726	694

N.B.—The whole of the above figures are based on cows milked thrice daily.

TABLE III.—AVERAGE POINTS GAINED IN THE MILKING TRIALS EACH YEAR SINCE 1922.

YEAR.		D.S. Cow over 5 years.	D.S. Cow 3-5 years.	D.S. Heifer.	D.S. Non-ped. Cow.	D.S. Non-ped. Heifer.	L.R.S. Cow.	L.R.S. Heifer.	B.F. Cow over 5 years.	B.F. Cow 3-5 years.	B.F. Heifer.	S.D. Cow over 5 years.	S.D. Cow 3-5 years.	S.D. Heifer.	Devon Cow.	R.P. Cow over 5 years.	R.P. Cow 3-5 years.
B.D.F.A. Class Standard ...		100.0	83.3	66.7	110.0	73.3	100.0	66.7	110.0	91.7	73.3	100.0	83.3	66.7	90.0	100.0	83.3
,, ,, ,, 1936		115.0	95.8	76.7	115.0	76.7	100.0	66.7	120.0	100.0	80.0	110.0	91.7	73.3	85.0	100.0	83.3
Milked Twice Daily.	1922	107.7	94.9	72.1	108.1	73.0	113.2	71.4	120.2	92.6	79.3	100.5	—	—	98.7	91.5	76.4
	1923	114.4	100.9	67.2	111.4	88.7	114.2	88.9	135.0	117.4	75.6	114.9	—	—	99.7	116.7	95.5
	1924	109.5	88.3	61.0	93.0	66.8	93.8	65.1	118.2	108.8	85.0	—	—	—	93.6	92.1	89.6
	1925	108.2	92.8	73.3	121.7	73.3	115.4	84.6	123.8	119.8	87.9	114.9	—	—	103.2	125.4	97.7
	1926	113.3	88.8	65.7	106.0	56.3‡	121.1	87.7	120.6‡	167.1‡	80.9	—	—	—	113.2‡	116.5	90.1
	1928	101.4	90.6	67.8	106.8	63.0	—	89.2	—	—	—	—	—	—	56.0	109.7	120.5‡
	1929	120.8	111.4	77.7	120.1	89.3	137.2‡	91.6	—	—	—	—	—	—	—	156.9‡	—
	1930	107.2	91.6	68.5	111.0	72.8	92.2	78.7	—	—	81.5	—	—	66.4	88.4‡	81.0‡	96.4
	1931	94.0	93.8	73.2	82.5‡	72.9	99.4‡	88.0	—	—	—	—	—	—	—	—	85.5
	1932	86.1	53.7	—	122.7	76.4	—	—	—	—	—	—	—	—	75.3	—	—
Average Points of last 10 Shows.		106.3	91.1	69.6	108.3	73.2	110.8	82.8	123.6	120.9	81.7	110.1	—	66.4	91.0	111.2	94.6
Milked Thrice Daily.	1928	127.6	95.1	75.3	—	73.6	128.8	95.7	125.6	133.4	88.0	127.4	—	—	—	84.6	126.6
	1929	147.0	112.3	79.2	106.8	—	125.7	83.2	153.0	136.4	78.6	139.7	—	—	138 4‡	119.8	102.2
	1930	131.2	107.1	80.8	120.6‡	59.9	121.9	—	125.5	131.4	85.5	135.6	—	—	45.8‡	122.5	119.0
	1931	139.7	130.7	87.6	164.9	91.9‡	140.5	87.0	161.4	162.0	112.9	140.7	—	100.8	—	147.2	130.0
	1932	138.7	126.6	94.6	133.2	67.8	96.7	80.5	142.7	122.6	104.1	125.0	120.4	95.7	—	113.9	110.9
	1933	129.5	115.8	80.3	126.9	99.3	104.9	86.2	155.8	123.4	91.7	103.2	104.1	67.4	—	113.4	105.0
	1934	144.1	122.6	90.7	139.3	97.5	103.6	104.7	163.1	145.7	91.2	134.8	132.2	100.0	111.1	138.7	108.7
	1935	139.6	122.2	86.5	126.5	88.2	121.3	96.7	151.4	127.1	86.6	126.7	135.0	92.2	107.4	124.3	112.9
	1936	135.1	131.3	101.4	134.2	97.1	126.7	91.1	158.9	149.1	98.6	168.7	139.8	99.0	107.4	135.3	119.2
Average Points of last 9 Shows		136.9	118.2	86.2	131.5	84.4	118.9	90.6	147.7	136.8	92.9	133.4	126.3	92.5	100.7	121.6	114.9

‡Points for one animal only.

TABLE III.—AVERAGE POINTS GAINED IN THE MILKING TRIALS EACH YEAR SINCE 1922—*Continued.*

YEAR		R.P. Heifers.	B.A. Cow.	B.A. Heifers.	W.B. Cow.	A. Cow over 5 years.	A Cow 3-5 years	A. Heifers.	G. Cow over 5 years.	G. Cow 3-5 years.	G. Heifers.	J. Cow over 5 years.	J. Cow 3-5 years.	J. Heifers.	K. Cow.	K. Heifers.	Dexter Cow.	Dexter Heifer.
B.D.F.A. Class Standard... ...		66.7	100.0	66.7	90.0	100.0	83.3	66.7	85.0	70.8	56.7	90.0	75.0	60.0	80.0	53.3	70.0	46.7
B.D.F.A. Class Standard 1936 ...		66.7	100.0	66.7	85.0	115.0	95.8	76.7	100.0	83.3	66.7	95.0	79.2	63.3	80.0	53.3	65.0	43.3
Milked Twice Daily.	1922	64.7	—	—	—	95.7	—	78.5	88.4	72.4	62.2	79.7	—	72.1	75.3	49.9	59.7	—
	1923	72.0	78.3	—	—	128.5	—	87.6	77.0	97.0	77.5	89.8	—	70.0	87.0	49.0	59.0	—
	1924	71.5	100.3	—	—	134.1	—	93.2	77.4	82.3	76.2	91.9	—	80.0	79.6	38.6	—	—
	1925	86.0	128.3	—	—	121.7	—	90.4	77.5	76.6	68.8	95.3	92.5	68.7	105.6	69.0	78.8	—
	1926	77.2	120.1	—	—	—	—	—	91.4	89.5	64.8	98.6	97.7	60.5	112.3	65.5	62.6	—
	1928	—	84.6	—	—	138.7‡	—	63.1‡	—	93.8‡	69.1‡	103.9	101.3	73.1	84.6	51.8	105.8	—
	1929	77.0‡	130.0	—	—	—	—	—	115.6	132.3‡	86.7	94.7	92.4	74.7	71.9	—	68.8	—
	1930	—	110.9	64.7	—	—	—	—	105.8‡	97.3‡	84.5‡	102.4	95.2	73.3	—	—	67.4	45.7
	1931	76.3‡	103.6	83.0‡	—	—	—	—	98.1	90.0	—	112.5	85.0	68.5	87.6	28.6‡	52.1‡	51.1
	1932	—	—	—	—	—	—	—	135.2	82.5	63.4	109.3	101.0	76.2	93.9	—	55.2	—
Average Points of last 10 Shows ...		74.9	107.0	73.8	—	123.7	—	82.6	96.3	91.4	72.5	96.8	95.0	71.7	88.6	50.2	67.7	48.4
Milked Thrice Daily.	1928... ...	74.6	—	—	—	138.4	—	104.1	111.2	99.9	77.4	114.3	93.5	97.2‡	80.8	68.6	83.8	—
	1929... ...	88.0	—	—	—	143.9	—	104.1	143.7‡	113.8	—	106.9	107.9	82.9	94.0	69.1	86.1	—
	1930... ...	72.4	—	—	97.2	127.4	—	90.8	113.5	114.6	110.0‡	100.7	79.7	80.9	102.1‡	71.9‡	74.4	50.2‡
	1931... ...	95.5	113.7‡	115.2‡	—	149.3	—	95.2	123.0	114.9	102.1	122.3	115.4	96.5	—	—	58.5	—
	1932... ...	—	—	—	—	162.8	—	101.4	109.7	93.0	107.0	112.3	115.8	86.6	79.9	—	76.4	—
	1933... ...	82.0	—	—	106.3	140.6	—	86.0	118.8	99.6	69.9	113.9	112.6	82.9	—	—	62.2	57.4
	1934... ...	82.0	—	—	98.5	151.1	—	105.4	112.5	102.7	92.7	116.0	109.3	87.5	102.2	62.6	89.0	—
	1935... ...	91.7	—	—	110.1	149.6	141.3	106.4	112.7	107 3	100.2	122.7	107.9	89.7	—	—	77.8	—
	1936... ...	84.1	—	—	130.1	149.6	131.4	108.7	125.5	133.7	98.2	125.8	106.3	85.8	70.8	—	83.8	—
Average Points of last 9 Shows		83.8	113.7	115.2	108.4	144.8	136.3	100.2	118.7	108.8	94.7	114.9	105.4	87.8	88.3	68.0	76.9	53.8

‡Points for one animal only.

TABLE IV.—SHOWING THE HIGHEST POINTS GAINED EACH YEAR SINCE 1926.

YEAR.	D.S. Cow over 5 years.	D.S. Cow 3-5 years.	D.S. Heifer.	D.S. Non-ped. Cow.	D.S. Non-ped. Heifer.	L.R.S. Cow.	L.R.S. Heifer.	B.F. Cow over 5 years.	B.F. Cow 3-5 years.	B.F. Heifer.	S.D. Cow over 5 years.	S.D. Cow 3-5 years.	S.D. Heifer.	Devon Cow.	R.P. Cow over 5 years.	R.P. Cow 3-5 years.
1926*	137.4	133.7	87.3	147.3	56.3	159.5	103.1	120.6	167.1	109.3	—	—	—	113.2	148.6	104.8
1926†	121.2	146.3	99.5	146.3	—	131.9	97.2	194.1	174.7	127.4	165.9	—	—	—	130.6	122.8
1928*	123.3	109.0	77.1	115.0	78.8	—	109.7	—	—	—	—	—	—	68.9	131.1	120.5
1928†	139.3	115.0	90.4	—	93.2	163.3	96.3	163.7	180.1	115.0	158.6	—	—	—	126.9	154.7
1929*	147.0	134.4	91.2	151.2	104.2	137.2	99.9	—	—	—	—	—	—	—	156.9	—
1929†	149.5	127.1	91.3	108.1	—	157.7	103.1	186.5	179.0	97.4	183.6	—	—	138.4	166.8	120.4
1930*	125.7	143.0	93.9	128.8	86.8	98.7	—	—	—	81.5	—	—	79.0	88.4	81.0	103.5
1930†	147.8	163.3	102.5	120.6	59.9	137.6	97.3	169.8	162.0	125.1	198.5	—	—	45.8	154.2	135.2
1931*	119.8	130.8	95.1	82.5	88.3	99.4	89.1	—	—	—	—	—	—	—	—	94.5
1931†	186.8	168.5	111.8	198.4	91.1	176.0	94.4	191.4	171.3	133.9	173.5	—	109.8	—	177.3	147.7
1932*	98.6	68.2	—	122.7	80.8	—	—	—	—	—	—	—	—	93.5	—	—
1932†	160.1	162.3	112.9	177.3	113.9	125.9	102.3	215.3	175.6	113.3	140.0	158.7	114.8	—	155.5	144.7
1933†	158.5	164.7	96.9	155.1	107.4	156.5	109.9	213.2	152.9	124.5	114.5	123.2	80.7	—	130.5	124.3
1934†	174.0	156.0	132.7	189.6	111.9	131.4	118.3	201.9	164.4	109.8	150.0	145.2	111.9	160.2	164.9	134.5
1935†	171.4	157.7	107.3	155.9	113.6	147.9	126.2	181.5	165.3	108.8	149.4	162.2	107.3	133.8	160.6	143.8
1936†	175.8	181.1	113.3	167.0	123.3	190.4	119.9	208.6	192.5	140.4	189.7	164.3	109.7	—	158.1	187.2

YEAR.	R.P. Heifers.	B.A. Cow.	B.A. Heifers.	W.B. Cow.	A. Cow over 5 years.	A. cow 3-5 years.	A. Heifers.	G. Cow over 5 years.	G.Cow 3-5 years.	G. Heifers.	J. Cow over 5 years.	J. Cow 3-5 years.	J. Heifers.	K. Cow.	K. Heifers.	Dexter Cow.	Dexter Heifers.
1926*	103.1	156.8	—	—	—	—	—	116.5	103.8	82.1	119.6	115.5	80.1	120.7	70.7	63.3	—
1926†	104.2	—	—	—	174.2	—	117.6	148.4	104.2	—	126.1	93.2	95.5	—	—	88.7	—
1928*	—	125.9	—	—	138.7	—	63.2	—	93.8	69.1	113.2	109.1	95.3	98.5	51.8	105.9	—
1928†	124.8	—	—	—	176.3	—	122.5	126.9	114.7	90.0	139.0	122.6	97.3	80.8	71.1	84.9	—
1929*	77.0	147.3	—	—	—	—	—	158.6	132.3	89.9	106.4	107.4	87.7	91.2	—	88.1	—
1929†	103.4	—	—	—	187.2	—	133.7	143.7	164.3	—	116.9	121.9	96.5	98.7	85.0	96.1	—
1930*	—	145.5	80.2	—	—	—	—	105.8	97.3	84.5	122.1	131.0	91.8	—	—	80.3	72.3
1930†	105.6	—	—	116.9	146.4	—	108.6	138.6	149.1	110.0	114.4	93.7	90.2	102.1	61.9	82.3	50.2
1931*	76.3	104.0	83.0	—	—	—	—	108.2	102.9	—	131.0	117.0	86.4	110.6	28.6	52.1	56.7
1931†	117.3	113.7	105.2	—	180.2	—	105.6	134.4	137.5	93.9	177.9	128.5	119.5	—	—	68.4	—
1932*	—	—	—	—	—	—	—	135.2	82.5	68.8	140.4	125.3	97.0	90.1	—	66.2	—
1932†	—	—	—	—	206.1	—	131.9	124.8	122.2	137.2	112.3	138.0	90.6	98.3	—	94.2	—
1933†	118.1	—	—	152.2	192.3	—	113.6	140.1	129.6	93.2	126.7	133.9	117.2	—	—	78.7	63.1
1934†	104.9	—	—	132.4	190.5	—	136.1	127.3	122.5	113.2	141.2	132.4	107.6	123.6	72.7	100.5	—
1935†	124.6	—	—	160.7	170.9	157.2	145.5	141.4	131.9	126.9	157.4	127.0	113.2	—	—	97.6	—
1936†	110.3	—	—	155.2	178.7	159.7	122.7	149.3	184.4	124.2	157.0	137.8	112.1	111.1	—	98.2	—

*Milked twice daily. †Milked thrice daily.

TABLE V.—QUANTITY AND QUALITY OF MILK—1936.

Class.	BREED.	No. of Competitors.	Average Weight of Milk.			Total Weight of Milk.	Average Composition of Milk.								
							Fat.			Solids—not Fat.			Total Solids.		
			Morn.	Aft.	Even.		Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
			lbs.	lbs.	lbs.	lbs.	%	%	%	%	%	%	%	%	%
1	Dairy Shorthorn Cow—Pedigree ...	7	20.45	20.23	20.46	61.14	3.94	4.22	4.33	8.98	8.79	8.79	12.92	13.01	13.12
2	Ditto—Cow 3-5 years	12	21.26	21.56	20.09	62.91	3.47	4.31	3.94	8.74	8.75	8.73	12.21	13.06	12.67
3	Ditto—Heifer	7	15.25	15.88	15.84	46.97	3.72	4.45	4.29	8.75	8.84	8.92	12.47	13.29	13.21
4	Dairy Shorthorn Cow—Non-pedigree	4	24.14	23.65	23.90	71.69	3.34	3.77	3.33	8.64	8.63	8.69	11.96	12.40	12.02
5	Ditto—Heifer	6	15.61	15.95	15.73	47.29	3.51	4.28	4.11	9.01	8.93	9.06	12.52	13.21	13.17
6	Lincolnshire Red Cow	9	20.29	20.11	19.30	59.70	3.81	4.31	3.66	8.62	8.66	8.64	12.43	12.97	12.30
7	Ditto—Heifer	6	15.54	15.09	14.72	45.35	3.40	4.01	3.45	9.05	9.09	9.11	12.45	13.10	12.56
8	British Friesian Cow...	11	26.89	27.45	26.50	80.84	3.43	4.19	3.32	8.83	8.99	9.05	12.26	13.18	12.37
9	Ditto—Cow 3-5 years	11	22.47	24.75	23.27	70.49	4.30	3.90	3.58	9.16	9.02	8.98	13.46	12.92	12.56
10	Ditto—Heifer	9	18.72	19.08	19.02	56.82	3.29	3.29	3.06	9.01	8.98	8.92	12.30	12.27	11.98
11	South Devon Cow	3	27.00	25.22	24.66	76.88	4.62	4.96	4.79	9.20	9.24	9.12	13.82	14.20	13.91
12	Ditto—Cow 3-5 years	5	21.49	21.40	20.12	63.01	4.64	4.67	3.92	9.32	9.21	9.19	13.96	13.88	13.11
13	Ditto—Heifer	4	14.31	14.06	13.70	42.07	4.96	5.22	4.09	9.60	9.73	9.59	14.56	14.95	13.68
15	Red Poll Cow...	12	20.00	20.75	20.20	60.95	4.66	4.33	3.97	9.50	9.34	9.34	14.16	13.67	13.31
16	Ditto—Cow 3-5 years	9	18.26	18.47	18.23	54.99	4.39	4.14	3.83	9.04	8.92	9.09	13.43	13.06	12.92
17	Ditto—Heifer	6	12.10	11.77	11.96	35.83	5.01	4.51	4.46	9.29	9.47	9.58	14.30	13.98	14.04
18	Welsh Black Cow	2	18.78	20.02	17.95	56.75	4.60	4.64	4.49	9.05	9.12	9.24	13.65	13.76	13.73
19	Ayrshire Cow	16	22.72	22.94	22.25	67.91	4.15	4.50	4.26	9.24	9.27	9.19	13.39	13.77	13.45
20	Ditto—Cow 3-5 years	9	18.76	18.61	18.12	55.49	4.91	5.18	5.09	9.24	9.37	9.37	14.15	14.55	14.46
21	Ditto—Heifer	11	16.04	15.76	15.80	47.60	4.73	4.90	4.43	9.17	9.31	9.12	13.90	14.21	13.55
22	Guernsey Cow	7	16.74	16.69	16.92	50.35	6.28	4.89	4.98	9.26	9.09	8.96	15.54	13.98	13.94
23	Ditto—Cow 3-5 years	8	17.63	17.12	16.85	51.60	5.94	5.45	5.20	9.22	9.20	9.20	15.16	14.65	14.40
24	Ditto—Heifer	4	11.79	12.11	12.44	36.34	7.06	6.94	5.86	10.18	9.75	9.51	17.24	16.69	15.37
25	Jersey Cow	18	15.95	17.00	15.95	48.90	5.46	5.79	5.25	9.41	9.31	9.28	14.87	15.10	14.53
26	Ditto—Cow 3-5 years	14	14.08	15.04	14.58	43.70	4.80	5.26	4.77	9.42	9.30	9.24	14.22	14.56	14.01
27	Ditto—Heifer	11	11.21	11.50	11.09	33.80	5.26	4.94	5.47	9.59	9.52	9.55	14.85	14.46	15.02
28	Kerry Cow	4	12.41	12.30	11.99	36.70	3.87	3.72	3.15	9.70	9.62	9.41	13.57	13.34	12.56
30	Dexter Cow	4	11.86	11.24	11.24	34.34	4.83	4.69	4.16	9.24	9.34	9.32	14.07	14.03	13.48

TABLE VI.—NUMBER OF ANIMALS YIELDING MILK DEFICIENT IN FAT AND OTHER SOLIDS.

BREED AND CLASS.	Less than 3 per cent. of Fat.										Less than 8.5 per cent. of Non-Fatty Solids.									
	1926	1928	1929	1930	1931	1932	1933	1934	1935	1936	1926	1928	1929	1930	1931	1932	1933	1934	1935	1936
Dairy Shorthorns—Ped. over 5 years ...	0	2	0	1	2	5	3	1	0	0	1	0	0	2	0	1	3	2	0	0
Ditto. 3-5 years	1	6	0	2	3	4	2	1	3	3	2	1	1	2	0	1	1	1	1	2
Ditto. Heifers	7	0	0	4	0	0	1	2	0	1	2	1	1	1	0	0	3	2	0	0
Dairy Shorthorns—Non-Ped. Cows ...	4	0	1	1	1	5	1	2	1	1	4	0	1	0	1	1	0	1	0	1
Ditto. Heifers	0	2	0	0	1	3	0	0	2	2	0	0	0	1	1	1	0	0	0	0
Lincoln Red Shorthorn Cows	1	1	1	1	1	3	1	0	1	1	0	0	2	4	0	2	1	0	2	3
Ditto. Heifers	0	0	0	3	0	1	2	0	3	2	1	0	2	0	0	0	0	1	0	0
British Friesian Cows. Over 5 years ...	3	7	1	6	1	9	3	2	2	5	5	2	6	3	4	7	3	5	1	1
Ditto. 3-5 years	3	1	4	2	0	5	5	0	5	3	3	0	2	2	1	3	2	2	2	0
Ditto. Heifers	2	4	1	5	2	1	2	3	5	5	2	1	2	3	0	0	3	2	2	2
South Devon Cows. Over 5 years ...	0	0	1	0	0	1	2	0	0	1	0	0	1	0	1	1	2	2	1	1
Ditto. 3-5 years	—	—	—	—	—	—	2	0	0	1	—	—	—	—	—	—	0	0	0	0
Ditto. Heifers	—	—	0	0	0	1	1	0	1	0	—	—	0	0	0	0	0	0	0	0
Devon. Cows	0	0	0	1	—	2	—	0	1	—	0	1	0	0	—	1	—	1	2	—
Red Poll. Cows over 5 years	0	2	2	2	0	2	2	0	2	1	0	0	1	0	1	1	1	0	4	0
Ditto. 3-5 years	1	1	1	4	2	—	0	0	1	1	0	1	0	1	2	—	0	0	1	1
Ditto. Heifers	0	0	0	1	0	—	1	2	1	0	0	0	0	1	0	—	0	1	0	0
Blue Albion. Cows	1	2	0	0	0	—	—	—	—	—	2	0	0	1	0	—	—	—	—	—
Ditto. Heifers	0	0	0	0	0	—	—	—	—	—	0	0	0	0	0	—	—	—	—	—
Welsh Black. Cows	0	—	—	0	—	—	1	1	0	0	0	—	—	1	—	—	0	0	0	0
Ayrshire. Cows over 5 years	0	2	2	3	2	3	0	3	0	1	0	0	3	3	2	2	0	3	0	1
Ditto. 3-5 years	—	—	—	—	—	—	—	—	2	0	—	—	—	—	—	—	—	—	0	0
Ditto. Heifers	1	1	2	1	1	1	1	2	3	1	0	0	1	1	0	0	1	0	0	0
Guernsey Cows. Over 5 years ...	0	0	0	1	0	1	0	2	1	0	0	0	1	2	1	0	0	0	0	0
Ditto. 3-5 years	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditto. Heifers	0	0	0	0	2	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0
Jersey. Cows over 5 years	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	1
Ditto. 3-5 years	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Ditto. Heifers	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Kerry. Cows	0	1	1	0	0	2	—	—	—	3	0	0	2	0	0	0	—	0	—	—
Ditto. Heifers	0	0	1	0	1	—	—	0	—	—	0	0	0	0	0	—	—	0	—	0
Dexter. Cows	—	0	0	0	2	2	3	0	1	0	—	0	2	1	1	0	0	0	0	0
Ditto. Heifers	—	0	0	1	0	—	0	—	—	—	—	0	0	0	0	—	0	—	—	—
Total	27	33	21	41	21	51	33	23	35	34	23	7	30	29	15	21	20	23	16	13
Number Tested	233	201	198	232	218	209	202	251	247	229	233	201	198	232	218	209	202	251	247	229

MILKING TRIALS, 1936.

CLASS 1.—DAIRY SHORTHORN COW, ENTERED IN OR ACCEPTED FOR COATES' HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1931. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD DURING A LACTATION PERIOD OF 45 WEEKS, RECORDED BY A RECOGNISED MILK RECORDING SOCIETY.

Number ...	2			6			8			9		
Name ...	Hethersett Barrington 17th.			Aldenham Barrington Lass 7th.			Silverstream Ringlet 5th.			Revels Coronet.		
Born ...	Oct. 3, 1928.			July 17, 1931.			Feb. 19, 1931.			June 30, 1929.		
Live weight, in lbs. ...	1,320			1,595			1,446			1,659		
Last Calved ...	Sept. 4.			July 22.			Sept. 10.			Aug. 3.		
Days since Calving ...	45			89			39			77		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	22.5	21.6	20.7	20.5	17.9	19.0	19.2	19.2	19.6	10.7	11.1	13.9
Weight of Milk, 2nd day ...	20.4	20.9	21.6	19.5	18.4	18.7	20.9	20.7	19.9	10.5	11.7	13.0
Total ...	42.9	42.5	42.3	40.0	36.3	37.7	40.1	39.9	39.5	21.2	22.8	26.9
Average ...	21.45	21.25	21.15	20.0	18.15	18.85	20.05	19.95	19.75	10.6	11.4	13.45
Percentage Composition of the Milk. Fat ...	4.17	3.71	3.74	3.16	4.42	4.67	4.76	5.18	4.97	3.90	3.51	4.68
Percentage Composition of the Milk. Solids other than Fat ...	9.21	8.73	8.66	8.82	8.64	8.67	9.00	8.74	8.82	8.88	8.81	8.76
Percentage Composition of the Milk. Total Solids ...	13.38	12.44	12.40	11.98	13.06	13.34	13.76	13.92	13.79	12.78	12.32	13.44
Actual weight of Fat, in lbs. ...	0.894	0.788	0.791	0.632	0.802	0.880	0.954	1.033	0.982	0.413	0.400	0.629
Actual weight of Solids other than Fat, in lbs. ...	1.98	1.86	1.83	1.76	1.57	1.63	1.80	1.74	1.74	0.940	1.00	1.18
Points—												
For weight of Milk (lbs.) ...	63.85			57.00			59.75			35.45		
For weight of Fat (lbs. × 20) ...	49.46			46.28			59.38			28.84		
For weight of Solids other than Fat (lbs. × 4) ...	22.68			19.84			21.12			12.48		
Total Points for Milk ...	135.99			123.12			140.25			76.77		
Deductions ...	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	135.99			123.12			140.25			76.77		
Points for time since Calving ...	0.5			4.9			—			3.7		
TOTAL POINTS GAINED ...	**136.49**			**128.02**			**140.25**			**80.47**		
Points gained for Milk per 1,000 lbs. live weight ...	103.02			77.19			96.99			46.27		
Points for time since Calving ...	0.5			4.9			—			3.7		
Total Points per 1,000 lbs. live weight ...	103.52			82.09			96.99			49.97		
Remarks and Awards ...	Reserve.			Highly Commended.			3rd Prize.					

CLASS I.—DAIRY SHORTHORN COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number ...	10			11			14		
Name ...	Steppingley Clover's Gift 4th.			Chevet Daygirl.			Fair Foggathorpe.		
Born ...	Sept. 28, 1927.			Oct. 6, 1930.			Dec. 6, 1930.		
Live weight, in lbs. ...	1,569			1,297			1,260		
Last Calved ...	Aug. 23.			Sept. 13.			Sept. 24.		
Days since Calving ...	57			36			25		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	29.2	29.3	27.5	23.9	23.7	23.2	19.2	20.4	19.7
Weight of Milk, 2nd day ...	26.6	25.1	25.6	23.2	23.3	23.1	20.0	19.9	21.0
Total ...	55.8	54.4	53.1	47.1	47.0	46.3	39.2	40.3	40.7
Average ...	27.9	27.2	26.55	23.55	23.5	23.15	19.6	20.15	20.35
Percentage Composition of the Milk. Fat ...	3.85	4.16	3.62	3.79	4.08	3.82	3.96	4.50	4.83
Percentage Composition of the Milk. Solids other than Fat ...	8.87	8.94	8.94	8.95	8.78	8.72	9.10	8.88	8.93
Percentage Composition of the Milk. Total Solids ...	12.72	13.10	12.56	12.74	12.86	12.54	13.06	13.38	13.76
Actual weight of Fat, in lbs. ...	1.074	1.132	0.961	0.893	0.959	0.884	0.776	0.907	0.983
Actual weight of Solids other than Fat, in lbs. ...	2.47	2.43	2.37	2.11	2.06	2.02	1.78	1.79	1.82
Points—									
For weight of Milk (lbs.) ...	81.65			70.20			60.10		
For weight of Fat (lbs. × 20) ...	63.34			54.72			53.32		
For weight of Solids other than Fat (lbs. × 4) ...	29.08			24.76			21.56		
Total Points for Milk ...	174.07			149.68			134.98		
Deductions ...	—			—			—		
TOTAL POINTS GAINED FOR MILK	174.07			149.68			134.98		
Points for time since Calving ...	1.7			—			—		
TOTAL POINTS GAINED ...	**175.77**			**149.68**			**134.98**		
Points gained for Milk per 1,000 lbs. live weight ...	110.94			115.40			107.13		
Points for time since Calving ...	1.7			—			—		
Total Points per 1,000 lbs. live weight ...	112.64			115.40			107.13		
Remarks and Awards ...	1st Prize.			2nd Prize.			Highly Commended.		

CLASS 2.—DAIRY SHORTHORN COW, ENTERED IN OR ACCEPTED FOR COATES' HERD BOOK. BORN AFTER 1ST AUGUST, 1931, AND WHICH HAS PRODUCED TWO OR MORE CALVES.

Number	18			20			21			22		
Name	Parkhouse Strawberry 16th.			Fothering Foggathorpe 2nd.			Huxham Duchess Rose 7th.			Aldenham Kirklevington Lady 6th.		
Born	Mar. 8, 1932.			Apr. 21, 1932.			Dec. 15, 1931.			June 4, 1932.		
Live weight, in lbs.	1,340			1,256			1,349			1,601		
Last Calved	Aug. 26.			Sept. 20.			May 20.			July 13.		
Days since Calving	54			29			152			98		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	28.3	28.5	21.8	22.5	22.6	22.0	22.0	24.1	24.9	24.2	23.3	24.0
Weight of Milk, 2nd day	26.1	28.5	27.9	23.1	22.0	21.8	24.1	23.2	22.6	23.0	20.4	6.1
Total	54.4	57.0	49.7	45.6	44.6	43.8	46.1	47.3	47.5	47.2	43.7	30.1
Average	27.2	28.5	24.85	22.8	22.3	21.9	23.05	23.65	23.75	23.6	21.85	15.05
Percentage Composition of the Milk. Fat	4.10	5.28	3.75	3.71	4.92	4.08	3.19	3.98	4.36	3.69	4.87	4.43
Percentage Composition of the Milk. Solids other than Fat	8.68	8.76	8.69	8.89	8.94	8.86	8.85	9.08	9.02	8.75	8.71	8.59
Percentage Composition of the Milk. Total Solids	12.78	14.04	12.44	12.60	13.86	12.94	12.04	13.06	13.38	12.44	13.58	13.02
Actual weight of Fat, in lbs.	1.115	1.505	0.932	0.846	1.097	0.894	0.735	0.941	1.036	0.871	1.064	0.667
Actual weight of Solids other than Fat. in lbs.	2.36	2.50	2.16	2.03	1.99	1.94	2.04	2.15	2.14	2.07	1.90	1.29
Points—												
For weight of Milk (lbs.)	80.55			67.00			70.45			60.50		
For weight of Fat (lbs. × 20)	71.04			56.74			54.24			52.04		
For weight of Solids other than Fat (lbs. × 4)	28.08			23.84			25.32			21.04		
Total Points for Milk	179.67			147.58			150.01			133.58		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	179.67			147.58			150.01			133.58		
Points for time since Calving	1.4			—			11.2			5.8		
TOTAL POINTS GAINED	**181.07**			**147.58**			**161.21**			**139.38**		
Points gained for Milk per 1,000 lbs. live weight	134.08			117.50			111.20			83.44		
Points for time since Calving	1.4			—			11.2			5.8		
Total Points per 1,000 lbs. live weight	135.48			117.50			122.40			89.24		
Remarks and Awards	1st Prize.			Reserve.			2nd Prize.			Highly Commended.		

CLASS 2.—DAIRY SHORTHORN COW (BORN AFTER 1ST AUGUST, 1931)—*Continued.*

Number	23			24			27			28		
Name	Aldenham Wild Queen 18th.			Revels Tulip 2nd.			Bennington Duchess.			Gift's Surprise.		
Born	Oct. 8, 1931.			Nov. 1, 1932.			Feb. 15, 1932.			Apr. 18, 1932.		
Live weight, in lbs.	1,648			1,393			1,201			1,278		
Last Calved	Aug. 24.			Aug. 23.			Sept. 29.			Sept. 23.		
Days since Calving	56			57			20			26		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	25.2	23.8	23.7	15.5	16.7	16.0	19.4	19.3	18.3	15.0	15.3	17.2
Weight of Milk, 2nd day	24.5	24.3	26.2	13.7	17.3	14.7	19.1	20.1	20.0	14.7	15.8	10.0
Total	49.7	48.1	49.9	29.2	34.0	30.7	38.5	39.4	38.3	29.7	31.1	27.2
Average	24.85	24.05	24.95	14.6	17.0	15.35	19.25	19.7	19.15	14.85	15.55	13.6
Percentage Composition of the Milk. Fat	3.80	3.72	3.57	2.38	3.93	3.85	4.21	4.93	4.81	3.06	3.91	4.27
Percentage Composition of the Milk. Solids other than Fat	8.86	8.58	8.67	8.50	8.77	8.73	9.05	9.29	9.27	8.82	8.67	8.61
Percentage Composition of the Milk. Total Solids	12.66	12.30	12.24	10.88	12.70	12.58	13.26	14.22	14.08	11.88	12.58	12.88
Actual weight of Fat, in lbs.	0.944	0.895	0.891	0.347	0.668	0.591	0.810	0.971	0.921	0.454	0.608	0.581
Actual weight of Solids other than Fat, in lbs.	2.20	2.06	2.16	1.24	1.49	1.34	1.74	1.83	1.78	1.31	1.35	1.17
Points—												
For weight of Milk (lbs.)	73.85			46.95			58.10			44.00		
For weight of Fat (lbs. × 20)	54.60			32.12			54.04			32.86		
For weight of Solids other than Fat (lbs. × 4)	25.68			16.28			21.40			15.32		
Total Points for Milk	154.13			95.35			133.54			92.18		
Deductions	—			10.0			—			—		
TOTAL POINTS GAINED FOR MILK	154.13			85.35			133.54			92.18		
Points for time since Calving	1.6			1.7			—			—		
TOTAL POINTS GAINED	**155.73**			**87.05**			**133.54**			**92.18**		
Points gained for Milk per 1,000 lbs. live weight	93.53			61.27			111.19			72.13		
Points for time since Calving	1.6			1.7			—			—		
Total Points per 1,000 lbs. live weight	95.13			62.97			111.19			72.13		
Remarks and Awards	3rd Prize.						Highly Commended.					

CLASS 2.—DAIRY SHORTHORN COW (BORN AFTER 1ST AUGUST, 1931)—*Continued.*

Number Name	30 Chevet Bella 2nd.			31 Hastoe Bective 5th.			34 Hillend Pearl.			35 Thornby Foggathorpe 43rd.		
Born	Oct. 10, 1931.			Sept. 21, 1931.			Mar. 11, 1932.			Sept. 27, 1931.		
Live weight, in lbs.	1,166			1,323			1,378			1,262		
Last Calved	Sept. 13.			May 20.			Sept. 16.			Sept. 11.		
Days since Calving	36			152			33			38		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Att.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	17.3	20.4	17.0	25.2	25.4	24.1	19.7	18.9	20.0	24.0	23.0	21.9
Weight of Milk, 2nd day	18.7	17.4	17.3	24.4	21.2	25.4	16.9	22.6	18.2	23.6	23.4	21.2
Total ...	36.0	37.8	34.3	49.6	46.6	49.5	36.6	41.5	38.2	47.6	46.4	43.1
Average	18.0	18.9	17.15	24.8	23.3	24.75	18.3	20.75	19.1	23.8	23.2	21.55
Percentage Composition of the Milk. Fat	2.77	4.34	3.14	2.79	3.51	3.37	3.39	3.71	3.94	4.54	4.65	3.74
Percentage Composition of the Milk. Solids other than Fat	8.77	8.88	8.94	8.47	8.05	8.27	8.47	8.63	8.52	8.82	8.69	8.60
Percentage Composition of the Milk. Total Solids	11.54	13.22	12.08	11.26	11.56	11.64	11.86	12.34	12.46	13.36	13.34	12.34
Actual weight of Fat, in lbs.	0.499	0.820	0.539	—	—	—	0.620	0.770	0.753	1.081	1.079	0.806
Actual weight of Solids other than Fat, in lbs.	1.58	1.68	1.53	—	—	—	1.55	1.79	1.63	2.10	2.02	1.85
Points—												
For weight of Milk (lbs.)	54.05			—			58.15			68.55		
For weight of Fat (lbs. × 20)	37.16			—			42.86			59.32		
For weight of Solids other than Fat (lbs. × 4)	19.16			—			19.88			23.88		
Total Points for Milk	110.37			—			120.89			151.75		
Deductions	10.0			—			10.0			—		
TOTAL POINTS GAINED FOR MILK	100.37			—			110.89			151.75		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED	**100.37**			—			**110.89**			**151.75**		
Points gained for Milk per 1,000 lbs. live weight	86.08			—			80.47			120.25		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	86.08			—			80.47			120.25		
Remarks and Awards	Highly Commended.			Disqualified.			Highly Commended.			4th Prize.		

CLASS 3.—DAIRY SHORTHORN HEIFER, ENTERED IN OR ELIGIBLE FOR COATES' HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1933, AND HAVING PRODUCED ONLY ONE CALF.

Number	38			39			41			42		
Name	Fothering Blush Rose.			Aldenham Barrington 11th.			Revels Grand Duchess 4th.			Revels Princess Pearl.		
Born	May 17, 1934.			Feb. 5, 1934.			Oct. 18, 1933.			Aug. 26, 1933.		
Live weight, in lbs.	994			1,146			1,049			1,090		
Last Calved	Sept. 13.			Sept. 13.			Sept. 7.			Aug. 24.		
Days since Calving	36			36			42			56		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.4	14.4	15.6	17.0	17.5	18.4	13.4	14.2	13.6	16.6	16.2	16.2
Weight of Milk, 2nd day	13.5	16.2	16.6	17.6	18.5	18.5	13.9	14.6	13.7	16.8	16.5	16.1
Total	29.9	30.6	32.2	34.6	36.0	36.9	27.3	28.8	27.3	33.4	32.7	32.3
Average	14.95	15.3	16.1	17.3	18.0	18.45	13.65	14.4	13.65	16.7	16.35	16.15
Percentage Composition of the Milk. Fat	5.12	4.44	4.29	2.34	3.41	4.29	3.80	5.30	4.39	3.78	5.31	4.73
Percentage Composition of the Milk. Solids other than Fat	8.66	8.62	8.59	8.80	8.87	9.01	9.12	9.00	9.09	8.62	8.77	8.91
Percentage Composition of the Milk. Total Solids	13.78	13.06	12.88	11.14	12.28	13.30	12.92	14.30	13.48	12.40	14.08	13.64
Actual weight of Fat, in lbs.	0.765	0.679	0.691	0.405	0.614	0.792	0.519	0.763	0.599	0.631	0.868	0.764
Actual weight of Solids other than Fat, in lbs. ...	1.29	1.32	1.38	1.52	1.60	1.66	1.24	1.30	1.24	1.44	1.43	1.44
Points—												
For weight of Milk (lbs.)	46.35			53.75			41.70			49.20		
For weight of Fat (lbs. × 20)	42.70			36.22			37.62			45.26		
For weight of Solids other than Fat (lbs. × 4) ...	15.96			19.12			15.12			17.24		
Total Points for Milk	105.01			109.09			94.44			111.70		
Deductions	—			10.0			—			—		
TOTAL POINTS GAINED FOR MILK	105.01			99.09			94.44			111.70		
Points for time since Calving ...	—			—			0.2			1.6		
TOTAL POINTS GAINED ...	**105.01**			**99.09**			**94.64**			**113.30**		
Points gained for Milk per 1,000 lbs. live weight ...	105.64			86.47			90.03			102.48		
Points for time since Calving	—			—			0.2			1.6		
Total Points per 1,000 lbs. live weight	105.64			86.47			90.23			104.08		
Remarks and Awards	2nd Prize.			Highly Commended.			Highly Commended.			1st Prize.		

CLASS 3.—DAIRY SHORTHORN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1933)—*Continued.*

Number	43			49			53		
Name	Revels Gwenda.			Hastoe Craggs.			Thornby Barrington Duchess 9th.		
Born	Oct. 6, 1933.			Jan. 10, 1934.			Sept. 29, 1933.		
Live weight, in lbs.	1,143			944			1,098		
Last Calved	Sept. 25.			Sept. 22.			Aug. 27.		
Days since Calving	24			27			53		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.9	15.4	13.8	14.0	14.9	15.0	15.7	15.0	17.7
Weight of Milk, 2nd day	14.4	15.3	14.6	13.1	15.8	15.9	15.2	17.8	16.1
Total	30.3	30.7	28.4	27.1	30.7	30.9	30.9	32.8	33.8
Average	15.15	15.35	14.2	13.55	15.35	15.45	15.45	16.4	16.9
Percentage Composition of the Milk. Fat	3.91	5.40	4.51	3.40	3.51	3.73	3.67	3.75	4.07
Percentage Composition of the Milk. Solids other than Fat	8.65	8.94	9.19	8.54	8.69	8.73	8.89	8.99	8.91
Percentage Composition of the Milk. Total Solids	12.56	14.34	13.70	11.94	12.20	12.46	12.56	12.74	12.98
Actual weight of Fat, in lbs.	0.592	0.829	0.640	0.461	0.539	0.576	0.567	0.615	0.688
Actual weight of Solids other than Fat, in lbs.	1.31	1.37	1.30	1.16	1.33	1.35	1.37	1.47	1.51
Points—									
For weight of Milk (lbs.)	44.70			44.35			48.75		
For weight of Fat (lbs. × 20)	41.22			31.52			37.40		
For weight of Solids other than Fat (lbs. × 4)	15.92			15.36			17.40		
Total Points for Milk	101.84			91.23			103.55		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	101.84			91.23			103.55		
Points for time since Calving	—			—			1.3		
TOTAL POINTS GAINED	**101.84**			**91.23**			**104.85**		
Points gained for Milk per 1,000 lbs. live weight	89.10			96.64			94.31		
Points for time since Calving	—			—			1.3		
Total Points per 1,000 lbs. live weight	89.10			96.64			95.61		
Remarks and Awards	Reserve.			Highly Commended.			3rd Prize.		

Class 4.—DAIRY SHORTHORN COW, not eligible for Classes 1 or 2. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old during a lactation period of 45 weeks, recorded by a recognised Milk Recording Society.

Number	58			59			60			64		
Name	Melody.			Betty.			Lodge Snowdrop.			Lucy.		
Born	Unknown.			1931.			Unknown.			Nov. 20, 1929.		
Live weight, in lbs.	1,323			1,312			1,411			1,268		
Last Calved	Sept. 25.			Oct. 5.			Sept. 24.			Aug. 7.		
Days since Calving	24			14			25			73		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.9	20.8	23.4	20.8	19.8	19.2	28.5	27.3	26.0	27.7	27.7	28.3
Weight of Milk, 2nd day	18.7	21.8	21.8	19.4	19.0	18.0	27.3	28.1	26.8	27.8	28.7	27.7
Total	41.6	42.6	45.2	40.2	38.8	37.2	55.8	55.4	52.8	55.5	56.4	56.0
Average	20.8	21.3	22.6	20.1	19.4	18.6	27.9	27.7	26.4	27.75	28.2	28.0
Percentage Composition of the Milk. Fat	3.96	3.44	5.02	3.63	4.25	4.20	3.16	4.10	3.16	2.56	3.30	0.93
Percentage Composition of the Milk. Solids other than Fat	8.90	8.90	9.22	9.11	9.09	9.26	8.60	8.50	8.54	7.94	8.02	7.73
Percentage Composition of the Milk. Total Solids	12.86	12.34	14.24	12.74	13.34	13.46	11.76	12.60	11.70	10.50	11.32	8.66
Actual weight of Fat, in lbs.	0.824	0.733	1.135	0.730	0.825	0.781	0.882	1.136	0.834	—	—	—
Actual weight of Solids other than Fat, in lbs. ...	1.85	1.90	2.08	1.83	1.76	1.72	2.40	2.35	2.25	—	—	—
Points—												
For weight of Milk (lbs.)	64.70			58.10			82.00			—		
For weight of Fat (lbs. × 20)	53.84			46.72			57.04			—		
For weight of Solids other than Fat (lbs. × 4) ...	23.32			21.24			28.00			—		
Total Points for Milk	141.86			126.06			167.04			—		
Deductions	—			—			—			—		
Total Points Gained for Milk	141.86			126.06			167.04			—		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**141.86**			**126.06**			**167.04**			—		
Points gained for Milk per 1,000 lbs. live weight ...	107.23			96.08			118.38			—		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	107.23			96.08			118.38			—		
Remarks and Awards	2nd Prize.			3rd Prize.			1st Prize.			Disqualified.		

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COW—*Continued.*

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1933, AND HAVING PRODUCED ONLY ONE CALF.

Number	90			91			92			93		
Name	Scothern Manor Amy 17th.			Wratting Betty 3rd.			Wratting Sensation.			Bendish Nancy 34th.		
Born	Mar. 29, 1933.			Oct. 13, 1933.			Dec. 13, 1933.			Oct. 25, 1933.		
Live weight, in lbs.	1,306			1,254			1,097			978		
Last Calved	Sept. 9.			Sept. 21.			Sept. 2.			Sept. 8.		
Days since Calving	40			28			47			41		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.4	17.0	17.9	12.1	12.6	11.6	17.7	17.2	18.4	19.9	20.6	21.3
Weight of Milk, 2nd day	17.4	18.1	16.7	12.9	12.3	11.0	18.1	16.5	17.6	22.8	23.3	22.7
Total	36.8	35.1	34.6	25.0	24.9	22.6	35.8	33.7	36.0	42.7	43.9	44.0
Average	18.4	17.55	17.3	12.5	12.45	11.3	17.9	16.85	18.0	21.35	21.95	22.0
Percentage Composition of the Milk. Fat	3.12	3.96	3.00	3.02	4.68	3.34	3.46	3.65	3.78	3.11	3.67	2.63
Percentage Composition of the Milk. Solids other than Fat	8.70	8.98	8.78	8.98	8.98	8.88	9.02	9.01	9.04	8.93	9.11	8.91
Percentage Composition of the Milk. Total Solids	11.82	12.94	11.78	12.00	13.66	12.22	12.48	12.66	12.82	12.04	12.78	11.54
Actual weight of Fat, in lbs.	0.574	0.695	0.519	0.378	0.583	0.377	0.619	0.615	0.680	0.664	0.806	0.579
Actual weight of Solids other than Fat, in lbs.	1.60	1.58	1.52	1.12	1.12	1.00	1.61	1.52	1.63	1.91	2.00	1.96
Points—												
For weight of Milk (lbs.)	53.25			36.25			52.75			65.30		
For weight of Fat (lbs. × 20)	35.76			26.76			38.28			40.98		
For weight of Solids other than Fat (lbs. × 4)	18.80			12.96			19.04			23.48		
Total Points for Milk	107.81			75.97			110.07			129.76		
Deductions	—			—			—			10.0		
TOTAL POINTS GAINED FOR MILK	107.81			75.97			110.07			119.76		
Points for time since Calving	—			—			0.7			0.1		
TOTAL POINTS GAINED	**107.81**			**75.97**			**110.77**			**119.86**		
Points gained for Milk per 1,000 lbs. live weight	82.55			60.58			100.34			122.45		
Points for time since Calving	—			—			0.7			0.1		
Total Points per 1,000 lbs. live weight	82.55			60.58			101.04			122.55		
Remarks and Awards	Highly Commended.			Reserve.			3rd Prize.			1st Prize.		

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1933)—*Continued.*

Number ...	96			97			98		
Name ...	Burton Cynthia 6th.			Burton Young Cherry 26th.			Scothern Manor Margaret 9th.		
Born ...	Dec. 15, 1933.			Feb. 20, 1934.			Oct. 11, 1933.		
Live weight, in lbs. ...	1,297			1,204			1,359		
Last Calved ...	Sept. 17.			Sept. 7.			Sept. 2.		
Days since Calving ...	32			42			47		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	12.7	11.4	11.0	23.3	19.8	17.1	7.6	9.2	8.6
Weight of Milk, 2nd day ...	10.8	10.7	10.1	20.3	19.0	19.3	8.3	8.5	7.9
Total ...	23.5	22.1	21.1	43.6	38.8	36.4	15.9	17.7	16.5
Average ...	11.75	11.05	10.55	21.8	19.4	18.2	7.95	8.85	8.25
Percentage Composition of the Milk. Fat ...	3.77	3.24	4.27	3.61	4.76	2.76	3.44	4.06	3.91
Percentage Composition of the Milk. Solids other than Fat ...	9.13	8.98	9.19	8.73	8.94	9.04	9.52	9.50	9.59
Percentage Composition of the Milk. Total Solids ...	12.90	12.22	13.46	12.34	13.70	11.80	12.96	13.56	13.50
Actual weight of Fat, in lbs. ...	0.443	0.358	0.450	0.787	0.923	0.502	0.273	0.359	0.323
Actual weight of Solids other than Fat, in lbs. ...	1.07	0.99	0.97	1.90	1.73	1.65	0.76	0.84	0.79
Points—									
For weight of Milk (lbs.) ...	33.35			59.40			25.05		
For weight of Fat (lbs. × 20) ...	25.02			44.24			19.10		
For weight of Solids other than Fat (lbs. × 4) ...	12.12			21.12			9.56		
Total Points for Milk ...	70.49			124.76			53.71		
Deductions ...	—			10.0			—		
TOTAL POINTS GAINED FOR MILK	70.49			114.76			53.71		
Points for time since Calving ...	—			0.2			0.7		
TOTAL POINTS GAINED ...	**70.49**			**114.96**			**54.41**		
Points gained for Milk per 1,000 lbs. live weight ...	54.35			95.32			39.52		
Points for time since Calving ...	—			0.2			0.7		
Total Points per 1,000 lbs. live weight ...	54.35			95.52			40.22		
Remarks and Awards ...	Highly Commended.			2nd Prize.					

CLASS 8.—BRITISH FRIESIAN COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK OR THE SUPPLEMENTARY REGISTER. BORN ON OR PREVIOUS TO 1ST AUGUST, 1931. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	99			100			101			103		
Name	Terling Breeze 34th.			Terling Ivory 19th.			Terling Contented 26th.			Wyken Charlotte 3rd.		
Born	Feb. 21, 1929.			Jan. 22, 1929.			Oct. 27, 1928.			Feb. 5, 1928.		
Live weight, in lbs.	1,504			1,330			1,358			1,396		
Last Calved	Sept. 26.			Sept. 1.			Aug. 2.			Aug. 29.		
Days since Calving	23			48			78			51		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	30.6	27.5	27.3	26.2	29.5	28.4	28.8	27.8	27.1	31.8	26.7	26.9
Weight of Milk, 2nd day	28.6	28.5	27.8	26.6	32.0	27.6	28.3	31.3	29.4	27.0	30.3	28.1
Total	59.2	56.0	55.1	52.8	61.5	56.0	57.1	59.1	56.5	58.8	57.0	55.0
Average	29.6	28.0	27.55	26.4	30.75	28.0	28.55	29.55	28.25	29.4	28.5	27.5
Percentage Composition of the Milk. Fat	2.75	3.20	2.84	2.15	3.77	3.11	4.25	6.91	3.85	2.97	2.84	1.87
Percentage Composition of the Milk. Solids other than Fat	9.27	9.60	9.52	7.91	8.39	8.75	8.79	9.49	9.21	8.67	8.78	9.09
Percentage Composition of the Milk. Total Solids	12.02	12.80	12.36	10.06	12.16	11.86	13.04	16.40	13.06	11.64	11.62	10.96
Actual weight of Fat, in lbs.	0.814	0.896	0.782	—	—	—	1.213	2.042	1.088	0.873	0.809	0.514
Actual weight of Solids other than Fat, in lbs.	2.74	2.69	2.62	—	—	—	2.51	2.80	2.60	2.55	2.50	2.50
Points—												
For weight of Milk (lbs.)	85.15			—			86.35			85.40		
For weight of Fat (lbs. × 20)	49.84			—			86.86			43.92		
For weight of Solids other than Fat (lbs. × 4)	32.20			—			31.64			30.20		
Total Points for Milk	167.19			—			204.85			159.52		
Deductions	20.0			—			—			30.0		
TOTAL POINTS GAINED FOR MILK	147.19			—			204.85			129.52		
Points for time since Calving	—			—			3.8			1.1		
TOTAL POINTS GAINED	**147.19**			—			**208.65**			**130.62**		
Points gained for Milk per 1,000 lbs. live weight	97.87			—			150.85			92.78		
Points for time since Calving	—			—			3.8			1.1		
Total Points per 1,000 lbs. live weight	97.87			—			154.65			93.88		
Remarks and Awards	Highly Commended.			Disqualified.			1st Prize.			Fat below standard.		

CLASS 8.—BRITISH FRIESIAN COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	104			105			108			110		
Name	Sukar Edna 2nd.			Winchester Danae.			Lavenham Chancery 3rd.			Lavenham Annie 29th.		
Born	Aug. 1, 1930.			Feb. 26, 1931.			Aug. 12, 1925.			Oct. 20, 1930.		
Live weight, in lbs.	1,591			1,310			1,704			1,330		
Last Calved	Sept. 18.			Sept. 18.			July 20.			Oct. 5.		
Days since Calving	31			31			91			14		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	26.7	26.3	27.4	23.7	23.5	22.5	26.6	30.0	28.0	24.9	25.6	25.9
Weight of Milk, 2nd day	32.7	30.5	26.9	23.9	22.5	24.7	31.3	30.1	28.9	25.5	25.4	24.4
Total	59.4	56.8	54.3	47.6	46.0	47.2	57.9	60.1	56.9	50.4	51.0	50.3
Average	29.7	28.4	27.15	23.8	23.0	23.6	28.95	30.05	28.45	25.2	25.5	25.15
Percentage Composition of the Milk. Fat	2.27	2.11	1.62	4.51	5.49	4.16	3.04	4.16	2.81	4.55	4.79	4.23
Solids other than Fat	8.53	8.50	8.60	9.09	9.17	9.10	8.94	8.90	9.07	9.79	9.85	9.71
Total Solids	10.80	10.61	10.22	13.60	14.66	13.26	11.98	13.06	11.88	14.34	14.64	13.94
Actual weight of Fat, in lbs.	0.674	0.599	0.440	1.073	1.263	0.982	0.880	1.250	0.799	1.147	1.221	1.064
Actual weight of Solids other than Fat, in lbs. ...	2.53	2.41	2.33	2.16	2.11	2.15	2.59	2.67	2.58	2.47	2.51	2.44
Points—												
For weight of Milk (lbs.)	85.25			70.40			87.45			75.85		
For weight of Fat (lbs. × 20)	34.26			66.36			58.58			68.64		
For weight of Solids other than Fat (lbs. × 4) ...	29.08			25.68			31.36			29.68		
Total Points for Milk	148.59			162.44			177.39			174.17		
Deductions	30.0			—			10.0			—		
TOTAL POINTS GAINED FOR MILK	118.59			162.44			167.39			174.17		
Points for time since Calving ...	—			—			5.1			—		
TOTAL POINTS GAINED ...	**118.59**			**162.44**			**172.49**			**174.17**		
Points gained for Milk per 1,000 lbs. live weight ...	74.54			124.00			98.23			130.95		
Points for time since Calving	—			—			5.1			—		
Total Points per 1,000 lbs. live weight	74.54			124.00			103.33			130.95		
Remarks and Awards	Fat below standard.			Highly Commended.			3rd Prize.			2nd Prize.		

CLASS 9.—BRITISH FRIESIAN COW (BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933)—*Continued.*

Number	131			134			135			136		
Name	Herrington Maureen.			Gilston Arlod Moya.			Saundby Wild Rose 2nd.			Riverhill Ruby.		
Born	Nov. 5, 1932.			Mar. 5, 1933.			Sept. 28, 1931.			Dec. 27, 1931.		
Live weight, in lbs.	1,344			1,530			1,468			1,241		
Last Calved	Sept. 25.			Sept. 23.			Sept. 24.			Aug. 11.		
Days since Calving	24			26			25			69		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.2	22.8	19.8	21.7	21.7	20.6	27.0	32.2	30.1	17.7	20.9	17.1
Weight of Milk, 2nd day	21.5	20.8	22.2	20.7	20.3	20.3	13.7	41.3	27.0	19.3	19.0	18.8
Total	42.7	43.6	42.0	42.4	42.0	40.9	40.7	73.5	57.1	37.0	39.9	35.9
Average	21.35	21.8	21.0	21.2	21.0	20.45	20.35	36.75	28.55	18.5	19.95	17.95
Percentage Composition of the Milk. Fat	4.18	4.17	3.63	4.16	3.71	2.94	5.19	4.44	3.69	3.36	3.76	2.72
Percentage Composition of the Milk. Solids other than Fat	9.08	8.63	8.91	9.72	9.33	9.42	9.49	9.22	9.39	9.12	9.08	9.02
Percentage Composition of the Milk. Total Solids	13.26	12.80	12.54	13.88	13.04	12.36	14.68	13.66	13.08	12.48	12.84	11.74
Actual weight of Fat, in lbs.	0.892	0.909	0.762	0.882	0.779	0.601	1.056	1.632	1.053	0.622	0.750	0.488
Actual weight of Solids other than Fat, in lbs. ...	1.94	1.88	1.87	2.06	1.96	1.93	1.93	3.39	2.68	1.69	1.81	1.62
Points—												
For weight of Milk (lbs.)	64.15			62.65			85.65			56.40		
For weight of Fat (lbs. × 20)	51.26			45.24			74.82			37.20		
For weight of Solids other than Fat (lbs. × 4) ...	22.76			23.80			32.00			20.48		
Total Points for Milk	138.17			131.69			192.47			114.08		
Deductions	—			10.0			—			10.0		
TOTAL POINTS GAINED FOR MILK	138.17			121.69			192.47			104.08		
Points for time since Calving ...	—			—			—			2.9		
TOTAL POINTS GAINED ...	**138.17**			**121.69**			**192.47**			**106.98**		
Points gained for Milk per 1,000 lbs. live weight ...	102.81			79.54			131.11			83.87		
Points for time since Calving	—			—			—			2.9		
Total Points per 1,000 lbs. live weight	102.81			79.54			131.11			86.77		
Remarks and Awards	Highly Commended.			Highly Commended.			1st Prize.			Highly Commended.		

CLASS 9.—BRITISH FRIESIAN COW (BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933)—*Continued.*

Number	137			138			140		
Name	Egham Darling 7th.			Egham Sapphire 5th.			Kenton Blossom.		
Born	Oct. 15, 1932.			Sept. 18, 1932.			Dec. 6, 1931.		
Live weight, in lbs.	1,160			1,220			1,437		
Last Calved	Sept. 23.			Sept. 28.			Sept. 29.		
Days since Calving	26			21			20		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.5	24.0	22.7	18.9	21.0	20.7	28.4	24.7	24.9
Weight of Milk, 2nd day	22.2	23.8	23.4	21.8	21.4	20.7	26.1	26.6	26.3
Total	42.7	47.8	46.1	40.7	42.4	41.4	54.5	51.3	51.2
Average	21.35	23.9	23.05	20.35	21.2	20.7	27.25	25.65	25.6
Percentage Composition of the Milk. Fat	4.68	3.31	2.51	3.83	3.56	3.96	5.94	4.76	3.38
Percentage Composition of the Milk. Solids other than Fat	8.74	8.71	8.61	9.27	9.20	9.10	9.18	9.02	8.96
Percentage Composition of the Milk. Total Solids	13.42	12.02	11.12	13.10	12.76	13.06	15.12	13.78	12.34
Actual weight of Fat, in lbs.	0.999	0.791	0.579	0.779	0.755	0.820	1.619	1.221	0.865
Actual weight of Solids other than Fat, in lbs. ...	1.87	2.08	1.98	1.89	1.95	1.88	2.50	2.31	2.29
Points—									
For weight of Milk (lbs.)	68.30			62.25			78.50		
For weight of Fat (lbs. × 20)	47.38			47.08			74.10		
For weight of Solids other than Fat (lbs. × 4) ...	23.72			22.88			28.40		
Total Points for Milk	139.40			132.21			181.00		
Deductions	10.0			—			—		
TOTAL POINTS GAINED FOR MILK	129.40			132.21			181.00		
Points for time since Calving ...	—			—			—		
TOTAL POINTS GAINED ...	**129.40**			**132.21**			**181.00**		
Points gained for Milk per 1,000 lbs. live weight ...	111.55			108.37			125.96		
Points for time since Calving	—			—			—		
Total Points per 1,000 lbs. live weight	111.55			108.37			125.96		
Remarks and Awards	Highly Commended.			Highly Commended.			2nd Prize.		

CLASS 10.—BRITISH FRIESIAN HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK OR THE SUPPLEMENTARY REGISTER. BORN ON OR AFTER 1ST AUGUST, 1933, AND HAVING PRODUCED ONLY ONE CALF.

Number	142			143			145		
Name	Barwyke Eclipse.			Oakham Dazzle.			Fintloch Hester.		
Born	Dec. 30, 1933.			Aug. 24, 1933.			Sept. 29, 1933.		
Live weight, in lbs.	1,230			1,344			1,331		
Last Calved	Oct. 1.			Sept. 19.			Aug. 15.		
Days since Calving	18			30			65		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	21.5	20.8	20.6	18.4	19.8	18.3	18.3	19.9	18.8
Weight of Milk, 2nd day	22.8	21.2	21.8	19.8	19.3	19.4	18.0	19.5	17.8
Total	44.3	42.0	42.4	38.2	39.1	37.7	36.3	39.4	36.6
Average	22.15	21.0	21.2	19.1	19.55	18.85	18.15	19.7	18.3
Percentage Composition of the Milk. — Fat	3.31	3.21	2.15	4.47	3.44	3.71	2.14	2.97	2.56
Percentage Composition of the Milk. — Solids other than Fat	8.97	8.71	8.85	9.11	9.18	8.89	8.36	8.39	8.26
Percentage Composition of the Milk. — Total Solids	12.28	11.92	11.00	13.58	12.62	12.60	10.50	11.36	10.82
Actual weight of Fat, in lbs.	0.733	0.674	0.456	0.854	0.673	0.699	—	—	—
Actual weight of Solids other than Fat, in lbs. ...	1.99	1.83	1.88	1.74	1.79	1.68	—	—	—
Points—									
For weight of Milk (lbs.)	64.35			57.50			—		
For weight of Fat (lbs. × 20)	37.26			44.52			—		
For weight of Solids other than Fat (lbs. × 4) ...	22.80			20.84			—		
Total Points for Milk	124.41			122.86			—		
Deductions	10.0			—			—		
TOTAL POINTS GAINED FOR MILK	114.41			122.86			—		
Points for time since Calving ...	—			—			—		
TOTAL POINTS GAINED ...	**114.41**			**122.86**			—		
Points gained for Milk per 1,000 lbs. live weight ...	93.02			91.41			—		
Points for time since Calving	—			—			—		
Total Points per 1,000 lbs. live weight	93.02			91.41			—		
Remarks and Awards	Highly Commended.			2nd Prize.			Disqualified.		

CLASS 10.—BRITISH FRIESIAN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1933)—*Continued.*

Number	146			147			148		
Name	Fintloch Ida.			Fintloch Holly.			Chelmsford Schraat 5th.		
Born	Apr. 28, 1934.			Sept. 27, 1933.			Oct. 7, 1933.		
Live weight, in lbs.	1,316			1,425			1,299		
Last Calved	Aug. 6.			Aug. 25.			July 27.		
Days since Calving	74			55			84		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.4	21.9	24.6	14.5	16.4	15.7	16.2	18.0	17.9
Weight of Milk, 2nd day	22.5	21.8	21.5	12.9	14.6	15.2	16.7	18.9	18.8
Total	44.9	43.7	46.1	27.4	31.0	30.9	32.9	36.9	36.7
Average	22.45	21.85	23.05	13.7	15.5	15.45	16.45	18.45	18.35
Percentage Composition of the Milk. Fat	3.42	3.20	3.33	2.79	3.23	3.33	2.67	2.57	2.39
Percentage Composition of the Milk. Solids other than Fat	9.12	9.40	9.25	9.89	9.81	9.77	9.07	8.73	9.13
Percentage Composition of the Milk. Total Solids	12.54	12.60	12.58	12.68	13.04	13.10	11.74	11.30	11.52
Actual weight of Fat, in lbs.	0.768	0.699	0.768	0.382	0.501	0.514	0.439	0.474	0.439
Actual weight of Solids other than Fat, in lbs.	2.05	2.05	2.13	1.35	1.52	1.51	1.49	1.61	1.68
Points—									
For weight of Milk (lbs.)	67.35			44.65			53.25		
For weight of Fat (lbs. × 20)	44.70			27.94			27.04		
For weight of Solids other than Fat (lbs. × 4)	24.92			17.52			19.12		
Total Points for Milk	136.97			90.11			99.41		
Deductions	—			10.0			30.0		
TOTAL POINTS GAINED FOR MILK	136.97			80.11			69.41		
Points for time since Calving	3.4			1.5			4.4		
TOTAL POINTS GAINED	**140.37**			**81.61**			**73.81**		
Points gained for Milk per 1,000 lbs. live weight	104.08			56.22			53.43		
Points for time since Calving	3.4			1.5			4.4		
Total Points per 1,000 lbs. live weight	107.48			57.72			57.83		
Remarks and Awards	1st Prize.			Highly Commended.			Fat below standard.		

CLASS 10—BRITISH FRIESIAN HEIFER (BORN ON OR AFTER 1ST AUGUST, 1933)—*Continued.*

Number ...	149			151			152		
Name ...	Chelmsford Peach 11th.			Wintersell Dainty 8th.			Egham Marigold 11th.		
Born ...	Dec. 7, 1933.			Sept. 30, 1933.			Aug. 12, 1933.		
Live weight, in lbs. ...	1,303			1,178			1,288		
Last Calved ...	May 14.			Sept. 12.			Sept. 5.		
Days since Calving ...	158			37			44		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	20.9	17.5	19.4	19.9	19.5	20.5	17.6	16.7	15.7
Weight of Milk, 2nd day ...	18.0	19.5	16.4	19.8	19.4	20.2	16.7	18.7	19.9
Total ...	38.9	37.0	35.8	39.7	38.9	40.7	34.3	35.4	35.6
Average ...	19.45	18.5	17.9	19.85	19.45	20.35	17.15	17.7	17.8
Percentage Composition of the Milk. Fat ...	2.74	3.37	2.94	3.51	3.02	3.14	4.60	4.56	3.98
Percentage Composition of the Milk. Solids other than Fat ...	8.30	8.33	8.22	9.43	9.50	9.34	8.84	8.78	8.60
Percentage Composition of the Milk. Total Solids ...	11.04	11.70	11.16	12.94	12.52	12.48	13.44	13.34	12.58
Actual weight of Fat, in lbs. ...	—	—	—	0.697	0.587	0.639	0.789	0.807	0.708
Actual weight of Solids other than Fat, in lbs. ...	—	—	—	1.87	1.85	1.90	1.52	1.55	1.53
Points—									
For weight of Milk (lbs.) ...	—			59.65			52.65		
For weight of Fat (lbs. × 20) ...	—			38.46			46.08		
For weight of Solids other than Fat (lbs. × 4) ...	—			22.48			18.40		
Total Points for Milk ...	—			120.59			117.13		
Deductions ...	—			—			—		
TOTAL POINTS GAINED FOR MILK	—			120.59			117.13		
Points for time since Calving ...	—			—			0.4		
TOTAL POINTS GAINED ...	—			**120.59**			**117.53**		
Points gained for Milk per 1,000 lbs. live weight ...	—			102.37			90.94		
Points for time since Calving ...	—			—			0.4		
Total Points per 1,000 lbs. live weight ...	—			102.37			91.34		
Remarks and Awards ...	Disqualified.			3rd Prize.			Reserve.		

CLASS 11.—SOUTH DEVON COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1931. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 7,500 LBS. AT FIVE YEARS OLD OR OVER, OR 5,600 LBS. AT UNDER FIVE YEARS OLD EITHER DURING A LACTATION PERIOD OF 45 WEEKS, OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number Name	153 Tracey's Milkmaid 5th.			155 Dartington Lassie.			156 Milkmaid 3rd.		
Born Live weight, in lbs. Last Calved Days since Calving	Apr. 5, 1924. 1,644. Oct. 5. 14			Mar, 1928. 1,603 Aug. 30. 50			Oct. 3, 1929. 1,983 Oct. 1. 18		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	30.4	27.4	28.0	25.5	30.3	22.8	31.4	20.2	20.3
Weight of Milk, 2nd day	28.6	26.3	26.7	26.9	25.0	28.9	19.2	22.1	21.3
Total	59.0	53.7	54.7	52.4	55.3	51.7	50.6	42.3	41.6
Average	29.5	26.85	27.35	26.2	27.65	25.85	25.3	21.15	20.8
Percentage Composition of the Milk. Fat	4.73	4.42	4.02	2.60	5.23	5.37	6.52	5.22	4.98
Percentage Composition of the Milk. Solids other than Fat	9.67	9.72	9.64	8.58	8.41	8.43	9.36	9.60	9.30
Percentage Composition of the Milk. Total Solids	14.40	14.14	13.66	11.18	13.64	13.80	15.88	14.82	14.28
Actual weight of Fat, in lbs.	1.395	1.187	1.099	0.681	1.446	1.388	1.650	1.104	1.036
Actual weight of Solids other than Fat, in lbs.	2.85	2.61	2.64	2.25	2.33	2.18	2.37	2.03	1.93
Points—									
For weight of Milk (lbs.)	83.70			79.70			67.25		
For weight of Fat (lbs. × 20)	73.62			70.30			75.80		
For weight of Solids other than Fat (lbs. × 4)	32.40			27.04			25.32		
Total Points for Milk	189.72			177.04			168.37		
Deductions	—			30.0			—		
TOTAL POINTS GAINED FOR MILK	189.72			147.04			168.37		
Points for time since Calving	—			1.0			—		
TOTAL POINTS GAINED	**189.72**			**148.04**			**168.37**		
Points gained for Milk per 1,000 lbs. live weight	115.40			91.73			84.91		
Points for time since Calving	—			1.0			—		
Total Points per 1,000 lbs. live weight	115.40			92.73			84.91		
Remarks and Awards	1st Prize.			3rd Prize.			2nd Prize.		

CLASS 12.—SOUTH DEVON COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933.

Number	157			158			159		
Name	Rydon Milkmaid 7th.			Dartington Dairymaid.			Dartington Cowslip 1st.		
Born	Sept. 20, 1932.			Nov. 19, 1931.			Jan. 17, 1933.		
Live weight, in lbs.	1,670			1,528			1,470		
Last Calved	Sept. 24.			Sept. 7.			Aug. 31.		
Days since Calving	25			42			49		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.6	21.3	17.0	24.8	23.5	22.6	21.9	20.7	19.4
Weight of Milk, 2nd day	19.4	19.0	16.6	22.3	22.9	23.2	21.3	20.4	20.3
Total	40.0	40.3	33.6	47.1	46.4	45.8	43.2	41.1	39.7
Average	20.0	20.15	16.8	23.55	23.2	22.9	21.6	20.55	19.85
Percentage Composition of the Milk. Fat	4.89	6.75	6.06	5.39	4.65	4.76	4.72	4.69	3.17
Percentage Composition of the Milk. Solids other than Fat	9.31	8.83	9.26	9.41	9.17	9.06	8.98	9.15	8.99
Percentage Composition of the Milk. Total Solids	14.20	15.58	15.32	14.80	13.82	13.82	13.70	13.84	12.16
Actual weight of Fat, in lbs.	0.978	1.360	1.018	1.269	1.079	1.090	1.020	0.964	0.629
Actual weight of Solids other than Fat, in lbs.	1.86	1.78	1.56	2.22	2.13	2.07	1.94	1.88	1.78
Points—									
For weight of Milk (lbs.)	56.95			69.65			62.00		
For weight of Fat (lbs. × 20)	67.12			68.76			52.26		
For weight of Solids other than Fat (lbs. × 4)	20.80			25.68			22.40		
Total Points for Milk	144.87			164.09			136.66		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	144.87			164.09			136.66		
Points for time since Calving	—			0.2			0.9		
TOTAL POINTS GAINED	**144.87**			**164.29**			**137.56**		
Points gained for Milk per 1,000 lbs. live weight	86.75			107.39			92.97		
Points for time since Calving	—			0.2			0.9		
Total Points per 1,000 lbs. live weight	86.75			107.59			93.87		
Remarks and Awards	2nd Prize.			1st Prize.			3rd Prize.		

CLASS 12.—SOUTH DEVON COW (BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933)—*Continued.*

Number ...	160			162		
Name ...	Dartington Hall Nervous Alice 2nd.			Kitty 6th.		
Born ...	Feb. 12, 1932.			Dec. 2, 1931.		
Live weight, in lbs. ...	1,604			1,560		
Last Calved ...	Sept. 18.			Sept. 12.		
Days since Calving ...	31			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	21.6	20.3	20.8	20.7	20.7	20.3
Weight of Milk, 2nd day ...	18.8	20.5	21.5	23.5	24.7	18.5
Total ...	40.4	40.8	42.3	44.2	45.4	38.8
Average ...	20.2	20.4	21.15	22.1	22.7	19.4
Percentage Composition of the Milk. Fat ...	4.32	3.77	3.49	3.87	3.50	2.12
Percentage Composition of the Milk. Solids other than Fat ...	9.42	9.47	9.39	9.47	9.42	9.24
Percentage Composition of the Milk. Total Solids ...	13.74	13.24	12.88	13.34	12.92	11.36
Actual weight of Fat, in lbs. ...	0.873	0.769	0.738	0.855	0.795	0.411
Actual weight of Solids other than Fat, in lbs. ...	1.90	1.93	1.99	2.09	2.14	1.79
Points—						
For weight of Milk (lbs.) ...	61.75			64.20		
For weight of Fat (lbs. × 20) ...	47.60			41.22		
For weight of Solids other than Fat (lbs. × 4) ...	23.28			24.08		
Total Points for Milk ...	132.63			129.50		
Deductions ...	—			10.0		
TOTAL POINTS GAINED FOR MILK	132.63			119.50		
Points for time since Calving ...	—			—		
TOTAL POINTS GAINED ...	**132.63**			**119.50**		
Points gained for Milk per 1,000 lbs. live weight ...	82.69			76.60		
Points for time since Calving ...	—			—		
Total Points per 1,000 lbs. live weight ...	82.69			76.60		
Remarks and Awards ...	Reserve.			Highly Commended.		

CLASS 13.—SOUTH DEVON HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1933, AND HAVING PRODUCED ONLY ON CALF.

Number	163			164			165			167		
Name	Rydon Milkmaid 9th.			Rydon Pink 20th.			Winsor Alma 2nd.			Dartington Primula.		
Born	Sept. 30, 1933.			Aug. 14, 1933.			Sept. 20, 1933.			Sept. 23, 1933.		
Live weight, in lbs.	1,436			1,609			1,134			1,292		
Last Calved	Sept. 17.			Sept. 17.			Aug. 20.			Sept. 12.		
Days since Calving	32			32			60			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.8	14.9	14.5	12.7	11.1	10.8	15.8	16.5	15.7	16.2	14.9	13.8
Weight of Milk, 2nd day	14.5	14.6	14.7	9.6	10.8	10.8	15.4	15.5	15.2	13.5	14.2	14.1
Total	31.3	29.5	29.2	22.3	21.9	21.6	31.2	32.0	30.9	29.7	29.1	27.9
Average	15.65	14.75	14.6	11.15	10.95	10.8	15.6	16.0	15.45	14.85	14.55	13.95
Percentage Composition of the Milk. Fat	5.35	5.78	4.32	4.48	5.23	3.95	4.61	4.77	4.17	5.41	5.10	3.92
Percentage Composition of the Milk. Solids other than Fat	9.71	9.90	9.70	9.54	9.65	9.65	9.57	9.79	9.55	9.59	9.58	9.48
Percentage Composition of the Milk. *Total Solids*	15.06	15.68	14.02	14.02	14.88	13.60	14.18	14.56	13.72	15.00	14.68	13.40
Actual weight of Fat, in lbs.	0.837	0.853	0.631	0.500	0.573	0.427	0.719	0.763	0.644	0.803	0.742	0.547
Actual weight of Solids other than Fat, in lbs. ...	1.52	1.46	1.42	1.06	1.06	1.04	1.49	1.57	1.48	1.42	1.39	1.32
Points—												
For weight of Milk (lbs.)	45.00			32.90			47.05			43.35		
For weight of Fat (lbs. × 20)	46.42			30.00			42.52			41.84		
For weight of Solids other than Fat (lbs. × 4) ...	17.60			12.64			18.16			16.52		
Total Points for Milk	109.02			75.54			107.73			101.71		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	109.02			75.54			107.73			101.71		
Points for time since Calving ...	—			—			2.0			—		
TOTAL POINTS GAINED ...	**109.02**			**75.54**			**109.73**			**101.71**		
Points gained for Milk per 1,000 lbs. live weight ...	75.92			46.95			95.00			78.72		
Points for time since Calving	—			—			2.0			—		
Total Points per 1,000 lbs. live weight	75.92			46.95			97.00			78.72		
Remarks and Awards	2nd Prize.			Reserve.			1st Prize.			3rd Prize.		

CLASS 15.—RED POLL COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1931. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number Name	169 Longford Ruby 7th.			170 Grundisburgh Wander Duck.			172 Bradwell Sonia.			174 Eastwell Marshmallow.		
Born	July 16, 1928.			Mar. 16, 1929.			Nov. 25, 1930.			Sept. 21, 1929.		
Live weight, in lbs.	1,079			1,274			1,228			1,304		
Last Calved	Sept. 29.			Sept. 17.			Oct. 1.			Sept. 30.		
Days since Calving	20			32			18			19		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.7	20.5	20.9	20.5	21.3	20.6	18.9	19.2	18.4	23.2	24.2	22.5
Weight of Milk, 2nd day	21.1	21.1	21.8	20.8	21.3	18.5	19.5	18.7	16.0	22.8	23.2	24.7
Total	40.8	41.6	42.7	41.3	42.6	39.1	38.4	37.9	34.4	46.0	47.4	47.2
Average	20.4	20.8	21.35	20.65	21.3	19.55	19.2	18.95	17.2	23.0	23.7	23.6
Percentage Composition of the Milk. Fat	4.60	4.45	3.64	4.50	5.01	3.31	3.06	4.75	4.60	3.13	3.93	3.52
Percentage Composition of the Milk. Solids other than Fat	9.56	9.45	9.44	9.18	9.05	8.99	9.22	9.57	9.76	9.49	9.27	9.40
Percentage Composition of the Milk. Total Solids	14.16	13.90	13.08	13.68	14.06	12.30	12.28	14.32	14.36	12.62	13.20	12.92
Actual weight of Fat, in lbs.	0.938	0.926	0.777	0.929	1.067	0.647	0.588	0.900	0.791	0.720	0.931	0.831
Actual weight of Solids other than Fat, in lbs.	1.95	1.97	2.02	1.90	1.93	1.76	1.77	1.81	1.68	2.18	2.20	2.22
Points—												
For weight of Milk (lbs.)	62.55			61.50			55.35			70.30		
For weight of Fat (lbs. × 20)	52.82			52.86			45.58			49.64		
For weight of Solids other than Fat (lbs. × 4)	23.76			22.36			21.04			26.40		
Total Points for Milk	139.13			136.72			121.97			146.34		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	139.13			136.72			121.97			146.34		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED	**139.13**			**136.72**			**121.97**			**146.34**		
Points gained for Milk per 1,000 lbs. live weight	128.94			107.32			99.32			112.22		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	128.94			107.32			99.32			112.22		
Remarks and Awards	Reserve.			Highly Commended.			Highly Commended.			4th Prize.		

CLASS 15.—RED POLL COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	175			176			177			178		
Name	Ranksborough Rosie.			Morston Girl 14th.			Binfield Daisy.			Bredfield Nancy 2nd.		
Born	Nov. 13, 1930.			Feb. 11, 1928.			Sept. 13, 1928.			Mar. 22, 1931.		
Live weight, in lbs.	1,324			1,538			1,175			1,177		
Last Calved	Sept. 17.			Oct. 4.			Sept. 23.			Sept. 26.		
Days since Calving	32			15			26			23		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.3	23.9	24.3	23.0	24.5	21.3	17.9	18.8	18.2	15.1	14.8	15.6
Weight of Milk, 2nd day	21.9	23.5	23.1	24.6	23.4	23.8	18.2	20.8	18.9	14.4	15.8	15.2
Total	44.2	47.4	47.4	47.6	47.9	45.1	36.1	39.6	37.1	29.5	30.6	30.8
Average	22.1	23.7	23.7	23.8	23.95	22.55	18.05	19.8	18.55	14.75	15.3	15.4
Percentage Composition of the Milk. Fat	3.56	4.01	2.40	4.98	3.40	4.96	5.90	4.61	4.51	6.90	4.47	3.84
Percentage Composition of the Milk. Solids other than Fat	9.62	9.57	9.34	9.10	8.76	9.30	9.90	10.01	9.83	9.80	9.91	9.60
Percentage Composition of the Milk. Total Solids	13.18	13.58	11.74	14.08	12.16	14.26	15.80	14.62	14.34	16.70	14.38	13.44
Actual weight of Fat, in lbs.	0.787	0.950	0.569	1.185	0.814	1.118	1.065	0.913	0.837	1.018	0.684	0.591
Actual weight of Solids other than Fat, in lbs. ...	2.13	2.27	2.21	2.17	2.10	2.10	1.79	1.98	1.82	1.45	1.52	1.48
Points—												
For weight of Milk (lbs.)	69.50			70.30			56.40			45.45		
For weight of Fat (lbs. × 20)	46.12			62.34			56.30			45.86		
For weight of Solids other than Fat (lbs. × 4) ...	26.44			25.48			22.36			17.80		
Total Points for Milk	142.06			158.12			135.06			109.11		
Deductions	10.0			—			—			—		
TOTAL POINTS GAINED FOR MILK	132.06			158.12			135.06			109.11		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**132.06**			**158.12**			**135.06**			**109.11**		
Points gained for Milk per 1,000 lbs. live weight ...	99.74			102.81			114.94			92.70		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	99.74			102.81			114.94			92.70		
Remarks and Awards	Highly Commended.			1st Prize.			Highly Commended.			Highly Commended.		

CLASS 15.—RED POLL COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	179			180			181			182		
Name	Mistley Amethyst.			Hallingbury Madeleine.			White Hill Charming Delight.			Holton Rainbow 6th.		
Born	Jan. 24, 1931.			Oct. 28, 1930.			Jan. 4, 1930.			Aug. 17, 1926.		
Live weight, in lbs.	1,343			1,067			1,096			1,458		
Last Calved	Sept. 4.			Aug. 30.			Sept. 8.			Sept. 27.		
Days since Calving	45			50			41			22		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.6	23.2	22.5	15.3	18.6	18.4	20.7	19.8	20.4	18.3	20.7	19.7
Weight of Milk, 2nd day	23.5	22.5	21.3	18.2	17.0	17.5	20.7	20.1	20.2	19.7	21.1	21.1
Total	43.1	45.7	43.8	33.5	35.6	35.9	41.4	39.9	40.6	38.0	41.8	40.8
Average	21.55	22.85	21.9	16.75	17.8	17.95	20.7	19.95	20.3	19.0	20.9	20.4
Percentage Composition of the Milk. Fat	3.92	4.02	4.69	4.18	4.21	3.56	4.47	4.28	3.53	6.77	4.82	5.07
Percentage Composition of the Milk. Solids other than Fat	9.62	9.32	9.17	9.58	9.33	9.30	9.05	8.94	8.77	9.91	8.92	9.25
Percentage Composition of the Milk. Total Solids	13.54	13.34	13.86	13.76	13.54	12.86	13.52	13.22	12.30	16.68	13.74	14.32
Actual weight of Fat, in lbs.	0.845	0.919	1.027	0.700	0.749	0.639	0.925	0.854	0.717	1.286	1.007	1.034
Actual weight of Solids other than Fat, in lbs.	2.07	2.13	2.01	1.60	1.66	1.67	1.87	1.78	1.78	1.88	1.86	1.89
Points—												
For weight of Milk (lbs.)	66.30			52.50			60.95			60.30		
For weight of Fat (lbs. × 20)	55.82			41.76			49.92			66.54		
For weight of Solids other than Fat (lbs. × 4)	24.84			19.72			21.72			22.52		
Total Points for Milk	146.96			113.98			132.59			149.36		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	146.96			113.98			132.59			149.36		
Points for time since Calving	0.5			1.0			0.1			—		
TOTAL POINTS GAINED	**147.46**			**114.98**			**132.69**			**149.36**		
Points gained for Milk per 1,000 lbs. live weight	109.43			106.82			120.98			102.44		
Points for time since Calving	0.5			1.0			0.1			—		
Total Points per 1,000 lbs. live weight	109.93			107.82			121.08			102.44		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			2nd Prize.		

CLASS 16.—RED POLL COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933.

Number	184			185			187			189		
Name	Longford Loafer.			Yoxford Maiden 3rd.			Diss Mermaid.			White Hill Charming Rose.		
Born	Sept. 2, 1931.			Aug. 20, 1932.			Feb. 22, 1932.			Dec. 14, 1931.		
Live weight, in lbs.	1,164			1,208			1,300			991		
Last Calved	Aug. 24.			Sept. 3.			Sept. 1.			Aug. 21.		
Days since Calving	56			46			48			59		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	24.5	18.4	22.8	20.9	22.5	22.5	14.1	13.8	13.8	20.6	19.1	18.1
Weight of Milk, 2nd day	20.8	22.0	20.3	19.3	24.7	22.1	13.0	14.8	14.5	18.8	19.5	17.7
Total	45.3	40.4	43.1	40.2	47.2	44.6	27.1	28.6	28.3	39.4	38.6	35.8
Average	22.65	20.2	21.55	20.1	23.6	22.3	13.55	14.3	14.15	19.7	19.3	17.9
Percentage Composition of the Milk. Fat	4.88	3.69	4.29	4.69	4.25	4.50	4.87	4.24	3.13	3.96	3.00	2.79
Percentage Composition of the Milk. Solids other than Fat	9.02	8.89	8.99	9.77	9.41	9.52	9.33	9.22	9.79	9.00	8.81	8.75
Percentage Composition of the Milk. Total Solids	13.90	12.58	13.28	14.46	13.66	14.02	14.20	13.46	12.92	12.96	11.81	11.54
Actual weight of Fat, in lbs.	1.105	0.745	0.924	0.943	1.003	1.004	0.660	0.606	0.443	0.780	0.579	0.499
Actual weight of Solids other than Fat, in lbs.	2.04	1.80	1.94	1.96	2.22	2.12	1.26	1.32	1.39	1.77	1.70	1.57
Points—												
For weight of Milk (lbs.)	64.40			66.00			42.00			56.90		
For weight of Fat (lbs. × 20)	55.48			59.00			34.18			37.16		
For weight of Solids other than Fat (lbs. × 4)	23.12			25.20			15.88			20.16		
Total Points for Milk	143.00			150.20			92.06			114.22		
Deductions	—			—			—			10.0		
TOTAL POINTS GAINED FOR MILK	143.00			150.20			92.06			104.22		
Points for time since Calving	1.6			0.6			0.8			1.9		
TOTAL POINTS GAINED	**144.60**			**150.80**			**92.86**			**106.12**		
Points gained for Milk per 1,000 lbs. live weight	122.85			124.34			70.82			105.17		
Points for time since Calving	1.6			0.6			0.8			1.9		
Total Points per 1,000 lbs. live weight	124.45			124.94			71.62			107.07		
Remarks and Awards	3rd Prize.			2nd Prize.			Highly Commended.			Highly Commended.		

CLASS 16.—RED POLL COW (BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933)—*Continued.*

Number	190			192			193			194		
Name	White Hill Charming Ruby.			Kirton Sundial.			Kirton Oaken.			Brightwell Prue 4th.		
Born	Jan. 20, 1933.			Jan. 27, 1932.			Nov. 5, 1932.			Feb. 23, 1932.		
Live weight, in lbs.	1,192			1,148			1,120			1,212		
Last Calved	Sept. 22.			Aug. 28.			July 18.			Sept. 5.		
Days since Calving	27			52			93			44		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	12.1	14.7	13.7	27.3	28.8	26.6	11.8	14.3	12.7	19.0	18.2	16.2
Weight of Milk, 2nd day	11.9	13.4	11.0	29.1	27.0	34.1	13.3	11.6	13.2	16.9	17.8	15.8
Total	24.0	28.1	24.7	56.4	55.8	60.7	25.1	25.9	25.9	35.9	36.0	32.0
Average	12.0	14.05	12.35	28.2	27.9	30.35	12.55	12.95	12.95	17.95	18.0	16.0
Percentage Composition of the Milk. Fat	4.63	4.44	4.24	4.02	3.57	4.18	4.08	3.74	3.81	4.39	6.18	4.14
Percentage Composition of the Milk. Solids other than Fat	8.93	8.74	8.70	9.24	8.87	9.28	8.58	8.60	8.75	8.89	9.36	9.24
Percentage Composition of the Milk. Total Solids	13.56	13.18	12.94	13.26	12.44	13.46	12.66	12.34	12.56	13.28	15.54	13.38
Actual weight of Fat, in lbs.	0.566	0.624	0.524	1.134	0.996	1.269	0.512	0.484	0.493	0.788	1.112	0.662
Actual weight of Solids other than Fat, in lbs.	1.07	1.23	1.07	2.61	2.47	2.82	1.08	1.11	1.13	1.60	1.68	1.48
Points—												
For weight of Milk (lbs.)	38.40			86.45			38.45			51.95		
For weight of Fat (lbs. × 20)	34.08			67.98			29.78			51.24		
For weight of Solids other than Fat (lbs. × 4)	13.48			31.60			13.28			19.04		
Total Points for Milk	85.96			186.03			81.51			122.23		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	85.96			186.03			81.51			122.23		
Points for time since Calving	—			1.2			5.3			0.4		
TOTAL POINTS GAINED	**85.96**			**187.23**			**86.81**			**122.63**		
Points gained for Milk per 1,000 lbs. live weight	72.11			162.05			72.78			100.85		
Points for time since Calving	—			1.2			5.3			0.4		
Total Points per 1,000 lbs. live weight	72.11			163.25			78.08			101.25		
Remarks and Awards	Highly Commended.			1st Prize.			Highly Commended.			Reserve.		

CLASS 16.—RED POLL COW (BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933)—*Continued.*

CLASS 17.—RED POLL HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK. BORN ON OR AFTER 1ST AUGUST, 1933, AND HAVING PRODUCED ONLY ONE CALF.

Number	195			199			200			202		
Name	Leonardslee Mulberry.			Yoxford Davy 3rd.			Mistley Minstrel.			Kirton Ruralist.		
Born	Jan. 19, 1933.			Sept. 30, 1934.			Sept. 25, 1933.			Mar. 2, 1934.		
Live weight, in lbs.	1,201			986			1,010			1,273		
Last Calved	Sept. 12.			Sept. 3.			Sept. 1.			Sept. 9.		
Days since Calving	37			46			48			40		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.6	15.8	16.6	12.3	11.2	11.1	11.9	11.4	11.6	7.4	7.7	7.2
Weight of Milk, 2nd day	16.6	16.1	16.4	11.2	11.2	11.1	11.7	11.5	11.5	8.0	7.5	7.8
Total	35.2	41.9	33.0	23.5	22.4	22.2	23.6	22.9	23.1	15.4	15.2	15.0
Average	17.6	15.95	16.5	11.75	11.2	11.1	11.8	11.45	11.55	7.7	7.6	7.5
Percentage Composition of the Milk. Fat	3.98	4.15	3.44	6.11	5.33	5.00	4.34	4.18	3.63	4.07	4.06	3.33
Percentage Composition of the Milk. Solids other than Fat	8.56	8.41	8.78	9.43	9.63	9.42	9.08	9.40	9.69	9.23	9.46	9.43
Percentage Composition of the Milk. Total Solids	12.54	12.56	12.22	15.54	14.96	14.42	13.42	13.58	13.32	13.30	13.52	12.76
Actual weight of Fat, in lbs.	0.700	0.662	0.568	0.718	0.597	0.555	0.512	0.479	0.419	0.313	0.309	0.250
Actual weight of Solids other than Fat, in lbs.	1.51	1.34	1.45	1.11	1.08	1.05	1.07	1.08	1.12	0.71	0.72	0.71
Points—												
For weight of Milk (lbs.)	50.05			34.05			34.80			22.80		
For weight of Fat (lbs. × 20)	38.60			37.40			28.20			17.44		
For weight of Solids other than Fat (lbs. × 4)	17.20			12.96			13.08			8.56		
Total Points for Milk	105.85			84.41			76.08			48.80		
Deductions	10.0			—			—			—		
TOTAL POINTS GAINED FOR MILK	95.85			84.41			76.08			48.80		
Points for time since Calving	—			0.6			0.8			—		
TOTAL POINTS GAINED	**95.85**			**85.01**			**76.88**			**48.80**		
Points gained for Milk per 1,000 lbs. live weight	79.81			85.61			75.33			38.33		
Points for time since Calving	—			0.6			0.8			—		
Total Points per 1,000 lbs. live weight	79.81			86.21			76.13			38.33		
Remarks and Awards	Highly Commended.			Reserve.			Highly Commended.					

CLASS 17.—RED POLL HEIFER (BORN ON OR AFTER 1ST AUGUST, 1933)—*Continued.*

Number	203			207			208		
Name	Kirton Copyist.			Wissett Meg.			Shortgrove Phoebe.		
Born	Aug. 4, 1933.			Nov. 25, 1933.			Oct. 6, 1933.		
Live weight, in lbs.	1,182			1,096			928		
Last Calved	Aug. 7.			Sept. 13.			Sept. 11.		
Days since Calving	73			36			38		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	12.7	12.6	13.2	13.4	12.7	13.0	16.3	14.8	15.8
Weight of Milk, 2nd day	12.9	11.8	13.6	12.4	12.8	12.5	15.0	16.1	15.1
Total	25.6	24.4	26.8	25.8	25.5	25.5	31.3	30.9	30.9
Average	12.8	12.2	13.4	12.9	12.75	12.75	15.65	15.45	15.45
Percentage Composition of the Milk. Fat	5.37	4.65	4.60	4.90	4.69	4.80	5.28	4.18	5.43
Percentage Composition of the Milk. Solids other than Fat	9.41	9.51	9.50	9.46	9.43	9.70	9.16	9.40	9.71
Percentage Composition of the Milk. Total Solids	14.78	14.16	14.10	14.36	14.12	14.50	14.44	13.58	15.14
Actual weight of Fat, in lbs.	0.687	0.567	0.616	0.632	0.598	0.612	0.826	0.646	0.839
Actual weight of Solids other than Fat, in lbs.	1.20	1.16	1.27	1.22	1.20	1.24	1.43	1.45	1.50
Points—									
For weight of Milk (lbs.)	38.40			38.40			46.55		
For weight of Fat (lbs. × 20)	37.40			36.84			46.22		
For weight of Solids other than Fat (lbs. × 4)	14.52			14.64			17.52		
Total Points for Milk	90.32			89.88			110.29		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	90.32			89.88			110.29		
Points for time since Calving	3.3			—			—		
TOTAL POINTS GAINED	**93.62**			**89.88**			**110.29**		
Points gained for Milk per 1,000 lbs. live weight	76.41			82.01			118.85		
Points for time since Calving	3.3			—			—		
Total Points per 1,000 lbs. live weight	79.71			82.01			118.85		
Remarks and Awards	2nd Prize.			3rd Prize.			1st Prize.		

CLASS 18.—WELSH BLACK COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 7,000 LBS. AT FIVE YEARS OLD OR OVER, OR 5,520 LBS. AT UNDER FIVE YEARS OLD EITHER DURING A LACTATION PERIOD OF 45 WEEKS, OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	212			215		
Name	Grace.			Snowdon Fuchsia.		
Born	Aug. 5, 1930.			July 27, 1931.		
Live weight, in lbs.	1,333			1,118		
Last Calved	Sept. 10.			Aug. 30.		
Days since Calving	39			50		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	23.9	24.8	21.7	14.0	15.5	15.0
Weight of Milk, 2nd day	21.9	22.8	20.3	15.3	17.0	14.8
Total	45.8	47.6	42.0	29.3	32.5	29.8
Average	22.9	23.8	21.0	14.65	16.25	14.9
Percentage Composition of the Milk. Fat	4.54	4.94	4.23	4.65	4.33	4.74
Percentage Composition of the Milk. Solids other than Fat	9.32	9.40	9.47	8.79	8.85	9.02
Percentage Composition of the Milk. Total Solids	13.86	14.34	13.70	13.44	13.18	13.76
Actual weight of Fat, in lbs.	1.040	1.176	0.888	0.681	0.704	0.706
Actual weight of Solids other than Fat, in lbs. ...	2.13	2.24	1.99	1.29	1.44	1.34
Points—						
For weight of Milk (lbs.)	67.70			45.80		
For weight of Fat (lbs. × 20)	62.08			41.82		
For weight of Solids other than Fat (lbs. × 4) ...	25.44			16.28		
Total Points for Milk	155.22			103.90		
Deductions	—			—		
TOTAL POINTS GAINED FOR MILK	155.22			103.90		
Points for time since Calving ...	—			1.0		
TOTAL POINTS GAINED ...	**155.22**			**104.90**		
Points gained for Milk per 1,000 lbs. live weight ...	116.44			92.93		
Ponts for time since Calving	—			1.0		
Total Points per 1,000 lbs. live weight	116.44			93.93		
Remarks and Awards	1st Prize.			2nd Prize.		

CLASS 19.—AYRSHIRE COW, ENTERED IN THE HERD BOOK OR APPENDICES. BORN ON OR PREVIOUS TO 1ST AUGUST, 1931. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD EITHER DURING A LACTATION PERIOD OF 45 WEEKS, OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number	217			220			221			222		
Name	North Boig Bonnie Betty.			Birnieknowe Adelaide.			Chapelhill Dora.			Newlands Moya.		
Born	Apr. 18, 1930.			Oct. 20, 1926.			Nov. 5, 1930.			Sept. 25, 1927.		
Live weight, in lbs.	1,208			1,148			1,194			1,225		
Last Calved	Sept. 27.			Oct. 2.			Sept. 29.			Sept. 3.		
Days since Calving	22			17			20			46		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	24.9	24.5	22.7	25.6	25.6	25.7	21.3	21.5	21.7	20.3	26.4	20.5
Weight of Milk, 2nd day	23.6	24.3	22.6	25.5	25.4	22.7	22.1	21.9	22.9	26.8	20.3	24.6
Total	48.5	48.8	45.3	51.1	51.0	48.4	43.4	43.4	44.6	47.1	46.7	45.1
Average	24.25	24.4	22.65	25.55	25.5	24.2	21.7	21.7	22.3	23.55	23.35	22.55
Percentage Composition of the Milk. Fat	4.80	5.54	5.06	5.29	5.24	4.64	4.52	5.41	3.95	3.19	3.34	2.58
Percentage Composition of the Milk. Solids other than Fat	9.20	9.48	9.22	8.99	9.12	9.00	9.62	9.43	9.69	9.43	9.16	9.38
Percentage Composition of the Milk. Total Solids	14.00	15.02	14.28	14.28	14.36	13.64	14.14	14.84	13.64	12.62	12.50	11.96
Actual weight of Fat, in lbs.	1.164	1.352	1.146	1.352	1.336	1.123	0.981	1.174	0.881	0.751	0.780	0.582
Actual weight of Solids other than Fat, in lbs. ...	2.23	2.31	2.09	2.30	2.33	2.18	2.09	2.05	2.16	2.22	2.14	2.12
Points—												
For weight of Milk (lbs.)	71.30			75.25			65.70			69.45		
For weight of Fat (lbs. × 20)	73.24			76.22			60.72			42.26		
For weight of Solids other than Fat (lbs. × 4) ...	26.52			27.24			25.20			25.92		
Total Points for Milk	171.06			178.71			151.62			137.63		
Deductions	—			—			—			10.0		
TOTAL POINTS GAINED FOR MILK	171.06			178.71			151.62			127.63		
Points for time since Calving ...	—			—			—			0.6		
TOTAL POINTS GAINED ...	**171.06**			**178.71**			**151.62**			**128.23**		
Points gained for Milk per 1,000 lbs. live weight ...	141.61			155.67			126.98			104.19		
Points for time since Calving	—			—			—			0.6		
Total Points per 1,000 lbs. live weight	141.61			155.67			126.98			104.79		
Remarks and Awards	4th Prize.			1st Prize.			Highly Commended.			Highly Commended.		

CLASS 19.—AYRSHIRE COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	224			225			226			227		
Name	Lyonston Delight 3rd.			Hall Iris.			- Langbarns Blossom 2nd.			Criffel Cathie.		
Born	Mar. 4, 1931.			Mar. 28, 1925.			Feb. 20, 1928.			Mar. 11, 1926.		
Live weight, in lbs.	1,051			824			1,084			1,095		
Last Calved	Oct. 5.			Oct. 2.			Sept. 2.			Sept. 9.		
Days since Calving	14			17			47			40		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.6	21.0	19.5	20.6	19.5	19.6	27.1	26.2	24.8	17.3	18.8	17.0
Weight of Milk, 2nd day	19.3	18.5	17.7	19.7	19.5	18.2	25.1	24.6	23.4	17.7	19.5	19.1
Total	38.9	39.5	37.2	40.3	39.0	37.8	52.2	50.8	48.2	35.0	38.3	36.1
Average	19.45	19.75	18.6	20.15	19.5	18.9	26.1	25.4	24.1	17.5	19.15	18.05
Percentage Composition of the Milk. Fat	4.71	4.71	4.05	3.04	3.85	3.81	3.98	3.91	3.48	3.81	4.56	3.78
Percentage Composition of the Milk. Solids other than Fat	9.41	9.25	9.37	8.96	9.11	9.05	8.54	8.91	9.04	9.07	8.64	9.28
Percentage Composition of the Milk. Total Solids	14.12	13.96	13.42	12.00	12.96	12.86	12.52	12.82	12.52	12.88	13.20	13.06
Actual weight of Fat, in lbs.	0.916	0.930	0.753	0.613	0.751	0.720	1.039	0.993	0.839	0.667	0.873	0.682
Actual weight of Solids other than Fat, in lbs.	1.83	1.83	1.74	1.81	1.78	1.71	2.23	2.26	2.18	1.59	1.65	1.68
Points—												
For weight of Milk (lbs.)	57.80			58.55			75.60			54.70		
For weight of Fat (lbs. × 20)	51.98			41.68			57.42			44.44		
For weight of Solids other than Fat (lbs. × 4)	21.60			21.20			26.68			19.68		
Total Points for Milk	131.38			121.43			159.70			118.82		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	131.38			121.43			159.70			118.82		
Points for time since Calving	—			—			0.7			—		
TOTAL POINTS GAINED	**131.38**			**121.43**			**160.40**			**118.82**		
Points gained for Milk per 1,000 lbs. live weight	125.00			147.37			147.32			108.51		
Points for time since Calving	—			—			0.7			—		
Total Points per 1,000 lbs. live weight	125.00			147.37			148.02			108.51		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 19.—AYRSHIRE COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	228			231			234			236		
Name	Barr Milkmaid.			Lessnessock Edith 10th.			Blackbyres Princess 3rd.			Logan Mains Trim 3rd.		
Born	Nov. 14, 1928.			Sept. 7, 1929.			Apr. 24, 1929.			July 18, 1929.		
Live weight, in lbs.	1,126			1,242			1,162			1,256		
Last Calved	Sept. 16.			Sept. 9.			Sept. 25.			Sept. 21.		
Days since Calving	33			40			24			28		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	25.7	26.8	23.7	17.9	19.0	19.1	27.6	30.3	27.4	27.5	27.2	26.5
Weight of Milk, 2nd day	24.1	24.5	24.6	18.3	18.3	16.4	26.2	29.8	29.2	26.9	28.0	24.7
Total	49.8	51.3	48.3	36.2	37.3	35.5	53.8	60.1	56.6	54.4	55.2	51.2
Average	24.9	25.65	24.15	18.1	18.65	17.75	26.9	30.05	28.3	27.2	27.6	25.6
Percentage Composition of the Milk. Fat	3.58	3.90	4.19	3.57	5.07	4.57	3.09	3.51	3.55	3.77	3.72	4.06
Solids other than Fat	9.28	9.34	9.05	9.13	9.53	9.53	9.03	9.21	9.13	9.31	9.64	9.12
Total Solids	12.86	13.24	13.24	12.70	14.60	14.10	12.12	12.72	12.68	13.08	13.36	13.18
Actual weight of Fat, in lbs.	0.891	1.000	1.012	0.646	0.946	0.811	0.831	1.055	1.005	1.025	1.027	1.039
Actual weight of Solids other than Fat, in lbs.	2.31	2.40	2.19	1.65	1.78	1.69	2.43	2.77	2.58	2.53	2.66	2.33
Points—												
For weight of Milk (lbs.)	74.70			54.50			85.25			80.40		
For weight of Fat (lbs. × 20)	58.06			48.06			57.82			61.82		
For weight of Solids other than Fat (lbs. × 4)	27.60			20.48			31.12			30.08		
Total Points for Milk	160.36			123.04			174.19			172.30		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	160.36			123.04			174.19			172.30		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED	**160.36**			**123.04**			**174.19**			**172.30**		
Points gained for Milk per 1,000 lbs. live weight	142.42			99.07			149.91			137.18		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	142.42			99.07			149.91			137.18		
Remarks and Awards	Highly Commended.			Highly Commended.			2nd Prize.			3rd Prize.		

CLASS 19.—AYRSHIRE COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	237			238			239			241		
Name	Mains Margaret 3rd.			Loaninghead Pansy 2nd.			Relief Lady Grace 2nd.			Compton Rosetta.		
Born	Mar. 18, 1931.			Dec. 8, 1929.			Apr. 16, 1931.			Sept. 16, 1930.		
Live weight, in lbs.	1,201			1,138			1,153			1,076		
Last Calved	Sept 12.			Oct. 1.			Oct. 1.			Sept. 27.		
Days since Calving	37			18			18			22		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	25.1	22.0	26.8	22.6	22.7	22.9	16.3	15.5	15.4	24.2	24.7	26.3
Weight of Milk, 2nd day	26.4	24.4	23.5	22.0	23.1	23.5	14.3	15.0	14.3	25.3	25.0	24.9
Total	51.5	46.4	50.3	44.6	45.8	46.4	30.6	30.5	29.7	49.5	49.7	51.2
Average	25.75	23.2	25.15	22.3	22.9	23.2	15.3	15.25	14.85	24.75	24.85	25.6
Percentage Composition of the Milk. Fat	3.72	3.86	3.78	5.47	5.29	5.66	5.68	5.78	6.70	4.16	4.32	4.30
Percentage Composition of the Milk. Solids other than Fat	9.16	9.26	9.24	9.77	9.13	8.90	9.24	9.48	8.40	9.76	9.70	9.60
Percentage Composition of the Milk. Total Solids	12.88	13.12	13.02	15.24	14.42	14.56	14.92	15.26	15.10	13.92	14.02	13.90
Actual weight of Fat, in lbs.	0.958	0.896	0.951	1.220	1.211	1.313	0.869	0.881	0.995	1.030	1.074	1.101
Actual weight of Solids other than Fat, in lbs. ...	2.36	2.15	2.32	2.18	2.09	2.06	1.41	1.45	1.25	2.42	2.41	2.46
Points—												
For weight of Milk (lbs.)	74.10			68.40			45.40			75.20		
For weight of Fat (lbs. × 20)	56.10			74.88			54.90			64.10		
For weight of Solids other than Fat (lbs. × 4) ...	27.32			25.32			16.44			29.16		
Total Points for Milk	157.52			168.60			116.74			168.46		
Deductions	—			—			10.0			—		
TOTAL POINTS GAINED FOR MILK	157.52			168.60			106.74			168.46		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**157.52**			**168.60**			**106.74**			**168.46**		
Points gained for Milk per 1,000 lbs. live weight ...	131.16			148.15			92.58			156.56		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	131.16			148.15			92.58			156.56		
Remarks and Awards	Highly Commended.			5th Prize.						Reserve.		

CLASS 20.—AYRSHIRE COW, ENTERED IN THE HERD BOOK OR APPENDICES. BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933.

Number Name	244 West Green White Silk.			246 Eshott Quicksilver.			247 Harleyholm Bunty 10th.			248 Lessnessock Lily.		
Born	Apr. 1, 1932.			Oct. 19, 1932.			Nov. 21, 1932.			May 8, 1933.		
Live weight, in lbs.	1,125			1,031			1,023			1,191		
Last Calved	Sept. 6.			Sept. 28.			Sept. 15.			Sept. 19.		
Days since Calving	43			21			34			30		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.9	19.5	20.4	21.8	22.6	20.7	18.7	18.4	17.4	19.3	20.0	19.2
Weight of Milk, 2nd day	19.1	21.6	19.6	22.6	23.1	21.5	18.9	18.1	18.6	19.0	19.6	17.9
Total	39.0	41.1	40.0	44.4	45.7	42.2	37.6	36.5	36.0	38.3	39.6	37.1
Average	19.5	20.55	20.0	22.2	22.85	21.1	18.8	18.25	18.0	19.15	19.8	18.55
Percentage Composition of the Milk. Fat	4.47	4.56	3.72	4.47	5.91	5.23	4.37	5.14	4.55	3.74	4.36	4.30
Solids other than Fat	8.59	8.96	9.26	9.27	9.37	9.33	8.85	9.10	9.47	9.58	9.64	9.60
Total Solids	13.06	13.52	12.98	13.74	15.28	14.56	13.22	14.24	14.02	13.32	14.00	13.90
Actual weight of Fat, in lbs.	0.872	0.937	0.744	0.992	1.350	1.104	0.822	0.938	0.819	0.716	0.863	0.798
Actual weight of Solids other than Fat, in lbs.	1.68	1.84	1.85	2.06	2.14	1.97	1.66	1.66	1.70	1.83	1.91	1.78
Points—												
For weight of Milk (lbs.)	60.05			66.15			55.05			57.50		
For weight of Fat (lbs. × 20)	51.06			68.92			51.58			47.54		
For weight of Solids other than Fat (lbs. × 4)	21.48			24.68			20.08			22.08		
Total Points for Milk	132.59			159.75			126.71			127.12		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	132.59			159.75			126.71			127.12		
Points for time since Calving	0.3			—			—			—		
TOTAL POINTS GAINED	**132.89**			**159.75**			**126.71**			**127.12**		
Points gained for Milk per 1,000 lbs. live weight	117.86			154.95			123.86			106.73		
Points for time since Calving	0.3			—			—			—		
Total Points per 1,000 lbs. live weight	118.16			154.95			123.86			106.73		
Remarks and Awards	Highly Commended.			1st Prize.			Highly Commended.			Highly Commended.		

Class 20—AYRSHIRE COW (Born after 1st August, 1931, and previous to 1st August, 1933—*Continued.*

Number Name	250 Loaninghead Lady Emblem.			251 Auchengibbert Ena.			252 Mains of Park Doll.			253 Relief Julia.		
Born	Nov. 29, 1931.			Apr. 3, 1933.			Feb. 2, 1932.			Sept. 10, 1931.		
Live weight, in lbs.	1,044			1,018			1,296			1,032		
Last Calved	Oct. 1.			Oct. 3.			Sept. 12.			Sept. 28.		
Days since Calving	18			16			37			21		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	20.9	19.2	19.1	11.8	9.5	9.9	22.3	23.9	22.3	19.9	17.3	16.0
Weight of Milk, 2nd day	19.1	18.3	18.6	10.1	9.7	10.9	17.9	19.4	19.1	16.5	15.6	17.2
Total	40.0	37.5	37.7	21.9	19.2	20.8	40.2	43.3	41.4	36.4	32.9	33.2
Average	20.0	18.75	18.85	10.95	9.6	10.4	20.1	21.65	20.7	18.2	16.45	16.6
Percentage Composition of the Milk. Fat	5.79	5.89	6.11	6.49	5.75	6.74	3.89	3.89	3.63	5.34	5.63	5.90
Percentage Composition of the Milk. Solids other than Fat	9.37	9.67	9.41	9.65	9.49	8.98	9.13	9.27	9.31	9.42	9.43	9.60
Percentage Composition of the Milk. Total Solids	15.16	15.56	15.52	16.14	15.24	15.72	13.02	13.16	12.94	14.76	15.06	15.50
Actual weight of Fat, in lbs.	1.158	1.104	1.152	0.711	0.552	0.701	0.782	0.842	0.751	0.972	0.926	0.979
Actual weight of Solids other than Fat, in lbs.	1.87	1.81	1.77	1.06	0.91	0.93	1.84	2.01	1.93	1.71	1.55	1.59
Points—												
For weight of Milk (lbs.)	57.60			30.95			62.45			51.25		
For weight of Fat (lbs. × 20)	68.28			39.28			47.50			57.54		
For weight of Solids other than Fat (lbs. × 4)	21.80			11.60			23.12			19.40		
Total Points for Milk	147.68			81.83			133.07			128.19		
Deductions	—			—			—			—		
Total Points Gained for Milk	147.68			81.83			133.07			128.19		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED	**147.68**			**81.83**			**133.07**			**128.19**		
Points gained for Milk per 1,000 lbs. live weight	141.46			80.38			102.68			124.22		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	141.46			80.38			102.68			124.22		
Remarks and Awards	2nd Prize.						Reserve.			Highly Commended.		

CLASS 20.—AYRSHIRE COW (BORN AFTER 1ST AUGUST, 1931, AND PREVIOUS TO 1ST AUGUST, 1933)—*Continued.*

CLASS 21.—AYRSHIRE HEIFER, REGISTERED OR ELIGIBLE FOR REGISTRATION IN THE HERD BOOK OR APPENDICES. BORN ON OR AFTER 1ST AUGUST, 1933, AND HAVING PRODUCED ONLY ONE CALF.

Number	259			262			263			264		
Name	Mackay's Princess Royal 2nd.			Howwell Gloria 2nd.			Isles Nora 2nd.			Stannock White Queenie.		
Born	May 22, 1932.			Dec. 19, 1933.			Dec. 14, 1933.			Jan. 20, 1934.		
Live weight, in lbs.	1,039			956			1,160			1,201		
Last Calved	Sept. 16.			Sept. 16.			Sept. 17.			Sept. 15.		
Days since Calving	33			33			32			34		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.4	20.4	19.8	17.4	16.1	18.0	17.3	17.4	19.4	15.7	17.2	17.2
Weight of Milk, 2nd day	20.4	18.8	18.0	17.3	16.7	17.0	18.7	18.4	17.8	15.5	16.5	17.1
Total	39.8	39.2	37.8	34.7	32.8	35.0	36.0	35.8	37.2	31.2	33.7	34.3
Average	19.9	19.6	18.9	17.35	16.4	17.5	18.0	17.9	18.6	15.6	16.85	17.15
Percentage Composition of the Milk. Fat	5.64	5.48	5.63	3.78	3.82	4.42	4.52	4.36	4.03	4.84	4.65	4.20
Percentage Composition of the Milk. Solids other than Fat	9.32	9.40	9.41	9.64	9.66	8.72	9.32	9.50	9.43	9.16	9.63	9.48
Percentage Composition of the Milk. Total Solids	14.96	14.88	15.04	13.42	13.48	13.14	13.84	13.86	13.46	14.00	14.28	13.68
Actual weight of Fat, in lbs.	1.122	1.074	1.064	0.656	0.626	0.774	0.814	0.780	0.750	0.755	0.784	0.720
Actual weight of Solids other than Fat, in lbs.	1.85	1.84	1.78	1.67	1.58	1.53	1.68	1.70	1.75	1.43	1.62	1.63
Points—												
For weight of Milk (lbs.)	58.40			51.25			54.50			49.60		
For weight of Fat (lbs. × 20)	65.20			41.12			46.88			45.18		
For weight of Solids other than Fat (lbs. × 4)	21.88			19.12			20.52			18.72		
Total Points for Milk	145.48			111.49			121.90			113.50		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	145.48			111.49			121.90			113.50		
Points for time since Calving	—			—			—			—		
TOTAL POINTS GAINED	**145.48**			**111.49**			**121.90**			**113.50**		
Points gained for Milk per 1,000 lbs. live weight	140.02			116.62			105.09			94.50		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	140.02			116.62			105.09			94.50		
Remarks and Awards	3rd Prize.			Highly Commended.			3rd Prize			Highly Commended		

CLASS 21.—AYRSHIRE HEIFER (BORN ON OR AFTER 1ST AUGUST, 1933)—*Continued*.

Number Name	265 Wilmcote Lily White.			267 Beauchamps Anita.			268 Beauchamps Azure.			269 Kilmaurs Mains Mermaid.		
Born	Oct. 23, 1933.			Jan. 17, 1934.			Feb. 18, 1934.			Oct. 2, 1933.		
Live weight, in lbs.	1,048			1,104			1,085			1,080		
Last Calved	Sept. 22.			Sept. 16.			Sept. 20.			Sept. 15.		
Days since Calving	27			33			29			34		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.1	18.1	14.9	15.2	14.8	13.2	12.7	12.2	12.8	17.4	17.2	16.6
Weight of Milk, 2nd day	22.4	12.2	13.6	13.6	13.7	13.6	12.4	12.1	13.2	15.7	15.2	15.3
Total	37.5	30.3	28.5	28.8	28.5	26.8	25.1	24.3	26.0	33.1	32.4	31.9
Average	18.75	15.15	14.25	14.4	14.25	13.4	12.55	12.15	13.0	16.55	16.2	15.95
Percentage Composition of the Milk. Fat	3.75	5.20	4.63	4.16	4.00	2.87	5.01	5.81	3.67	5.20	5.78	5.86
Percentage Composition of the Milk. Solids other than Fat	8.79	8.90	8.93	8.88	9.08	9.13	9.05	9.47	8.87	8.90	9.00	9.00
Percentage Composition of the Milk. Total Solids	12.54	14.10	13.56	13.04	13.08	12.00	14.06	15.28	12.54	14.10	14.78	14.86
Actual weight of Fat, in lbs.	0.703	0.788	0.660	0.599	0.570	0.385	0.629	0.706	0.477	0.861	0.936	0.935
Actual weight of Solids other than Fat, in lbs. ...	1.65	1.35	1.27	1.28	1.29	1.22	1.14	1.15	1.15	1.47	1.46	1.44
Points—												
For weight of Milk (lbs.)	48.15			42.05			37.70			48.70		
For weight of Fat (lbs. × 20)	43.02			31.08			36.24			54.64		
For weight of Solids other than Fat (lbs. × 4) ...	17.08			15.16			13.76			17.48		
Total Points for Milk	108.25			88.29			87.70			120.82		
Deductions	—			10.0			—			—		
TOTAL POINTS GAINED FOR MILK	108.25			78.29			87.70			120.82		
Points for time since Calving ...	—			—			—			—		
TOTAL POINTS GAINED ...	**108.25**			**78.29**			**87.70**			**120.82**		
Points gained for Milk per 1,000 lbs. live weight ...	103.29			70.91			80.83			111.87		
Points for time since Calving	—			—			—			—		
Total Points per 1,000 lbs. live weight	103.29			70.91			80.83			111.87		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.			Reserve.		

Class 21.—AYRSHIRE HEIFER (Born on or after 1st August, 1933)—*Continued.*

Number ... ... Name	271 Burton Marigold.			277 Caigton Swan.			279 Kilfillan Stella.			280 Compton Chic.		
Born	Dec. 17, 1933.			Oct. 31, 1933.			Feb. 18, 1934.			Jan. 27, 1934.		
Live weight, in lbs.	1,076			1,058			983			1,024		
Last Calved	Sept. 15.			Sept. 27.			Sept. 7.			Oct. 2.		
Days since Calving	34			22			42			17		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	17.5	18.3	17.4	16.1	15.5	15.8	17.6	17.0	16.5	13.4	13.8	13.9
Weight of Milk, 2nd day	17.0	17.9	18.0	15.3	15.6	15.4	16.5	17.1	17.8	13.0	13.7	13.1
Total	34.5	36.2	35.4	31.4	31.1	31.2	34.1	34.1	34.3	26.4	27.5	27.0
Average	17.25	18.1	17.7	15.7	15.55	15.6	17.05	17.05	17.15	13.2	13.75	13.5
Percentage Composition of the Milk. Fat	4.69	4.68	4.84	5.27	4.80	3.99	5.15	5.09	5.14	5.65	5.73	5.06
Percentage Composition of the Milk. Solids other than Fat	8.95	8.78	8.74	9.33	9.20	9.29	9.13	9.21	9.04	9.69	10.03	9.70
Percentage Composition of the Milk. Total Solids	13.64	13.46	13.60	14.60	14.00	13.28	14.28	14.30	14.18	15.34	15.76	14.76
Actual weight of Fat, in lbs.	0.809	0.847	0.857	0.827	0.746	0.622	0.878	0.868	0.882	0.746	0.788	0.683
Actual weight of Solids other than Fat, in lbs. ...	1.54	1.59	1.55	1.46	1.43	1.45	1.56	1.57	1.55	1.28	1.38	1.31
Points—												
For weight of Milk (lbs.)	53.05			46.85			51.25			40.45		
For weight of Fat (lbs. × 20)	50.26			43.90			52.56			44.34		
For weight of Solids other than Fat (lbs. × 4) ...	18.72			17.36			18.72			15.88		
Total Points for Milk	122.03			108.11			122.53			100.67		
Deductions	—			—			—			—		
Total Points Gained for Milk	122.03			108.11			122.53			100.67		
Points for time since Calving ...	—			—			0.2			—		
TOTAL POINTS GAINED ...	**122.03**			**108.11**			**122.73**			**100.67**		
Points gained for Milk per 1,000 lbs. live weight ...	113.41			102.18			124.65			98.31		
Points for time since Calving	—			—			0.2			—		
Total Points per 1,000 lbs. live weight	113.41			102.18			124.85			98.31		
Remarks and Awards	2nd Prize.			Highly Commended.			1st Prize.			Highly Commended.		

Class 22.—GUERNSEY COW, entered in or accepted for the Herd Book. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.

Number	281			282			283			284		
Name	Lynchmere Sally 3rd.			Dairymaid of Riduma.			Starless 4th of Ville Amphrey.			Valence Lavender 2nd.		
Born	Sept. 27, 1925.			Jan. 17, 1930.			Aug. 11, 1930.			Aug. 24, 1927.		
Live weight, in lbs.	1,459			1,090			1,008			1,001		
Last Calved	Sept. 20.			Sept. 8.			Sept. 24.			Mar. 6.		
Days since Calving	29			41			25			227		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	19.4	19.0	18.5	21.3	21.4	20.8	14.4	21.4	21.1	17.7	16.9	17.1
Weight of Milk, 2nd day	19.0	18.3	19.9	20.3	19.9	21.2	16.9	15.6	16.1	15.3	16.4	16.8
Total	38.4	37.3	38.4	41.6	41.3	42.0	31.3	37.0	37.2	33.0	33.3	33.9
Average	19.2	18.65	19.2	20.8	20.65	21.0	15.65	18.5	18.6	16.5	16.65	16.95
Percentage Composition of the Milk. Fat	4.38	3.50	4.09	7.21	4.21	3.93	6.96	4.40	5.80	7.18	5.36	5.30
Solids other than Fat	8.88	9.12	9.03	9.59	8.97	8.91	9.54	9.30	9.14	9.16	8.94	8.92
Total Solids	13.26	12.62	13.12	16.80	13.18	12.84	16.50	13.70	14.94	16.34	14.30	14.22
Actual weight of Fat, in lbs.	0.841	0.653	0.785	1.500	0.869	0.825	1.089	0.814	1.079	1.185	0.892	0.898
Actual weight of Solids other than Fat, in lbs.	1.70	1.70	1.73	1.99	1.85	1.87	1.49	1.72	1.70	1.51	1.49	1.51
Points—												
For weight of Milk (lbs.)	57.05			62.45			52.75			50.10		
For weight of Fat (lbs. × 20)	45.58			63.88			59.64			59.50		
For weight of Solids other than Fat (lbs. × 4)	20.52			22.84			19.64			18.04		
Total Points for Milk	123.15			149.17			132.03			127.64		
Deductions	—			—			—			—		
Total Points Gained for Milk	123.15			149.17			132.03			127.64		
Points for time since Calving	—			0.1			—			12.0		
TOTAL POINTS GAINED	**123.15**			**149.27**			**132.03**			**139.64**		
Points gained for Milk per 1,000 lbs. live weight	84.41			136.85			130.98			127.51		
Points for time since Calving	—			0.1			—			12.0		
Total Points per 1,000 lbs. live weight	84.41			137.85			130.98			139.51		
Remarks and Awards	Highly Commended.			1st Prize.			3rd Prize.			2nd Prize.		

CLASS 22.—GUERNSEY COW (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	285			287			288		
Name	Dormans Rowanberry 1st.			Rose of Goodnestone 15th.			Bosahan Evelyn.		
Born	July 24, 1923.			June 24, 1931.			Apr. 10, 1930.		
Live weight, in lbs.	1,077			1,094			1,037		
Last Calved	Sept. 25.			Apr. 9.			Sept. 2.		
Days since Calving	24			193			47		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.4	14.9	16.1	11.5	11.2	11.0	19.0	15.1	14.9
Weight of Milk, 2nd day	14.7	15.4	14.8	11.8	10.1	9.8	17.6	18.0	18.8
Total	30.1	30.3	30.9	23.3	21.3	20.8	36.6	33.1	33.7
Average	15.05	15.15	15.45	11.65	10.65	10.4	18.3	16.55	16.85
Percentage Composition of the Milk. Fat	4.68	4.50	4.18	7.90	6.13	5.84	5.65	6.18	5.75
Percentage Composition of the Milk. Solids other than Fat	8.80	8.76	8.54	9.44	9.61	9.38	9.41	8.90	8.81
Percentage Composition of the Milk. Total Solids	13.48	13.26	12.72	17.34	15.74	15.22	15.06	15.08	14.56
Actual weight of Fat, in lbs.	0.704	0.682	0.646	0.920	0.653	0.607	1.034	1.023	0.969
Actual weight of Solids other than Fat, in lbs. ...	1.32	1.33	1.32	1.10	1.02	0.98	1.72	1.47	1.48
Points—									
For weight of Milk (lbs.)	45.65			32.70			51.70		
For weight of Fat (lbs. × 20)	40.64			43.60			60.52		
For weight of Solids other than Fat (lbs. × 4) ...	15.88			12.40			18.68		
Total Points for Milk	102.17			88.70			130.90		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	102.17			88.70			130.90		
Points for time since Calving ...	—			12.0			0.7		
TOTAL POINTS GAINED ...	**102.17**			**100.70**			**131.60**		
Points gained for Milk per 1,000 lbs. live weight ...	94.87			81.08			126.23		
Points for time since Calving	—			12.0			0.7		
Total Points per 1,000 lbs. live weight	94.87			93.09			126.93		
Remarks and Awards	Highly Commended.			Highly Commended.			Reserve.		

CLASS 23.—GUERNSEY COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1931, AND WHICH HAS PRODUCED TWO OR MORE CALVES.

Number	289			290			291			295		
Name	Harewood Excelsa.			Rosey of Goodnestone 62nd.			Dairy Queen 3rd of Clover Top.			Primrose Poltimore of Payhay.		
Born	July 11, 1932.			Feb. 1, 1932.			June 25th, 1932.			June 13, 1932.		
Live weight, in lbs.	1,226			1,053			1,085			1,114		
Last Calved	Aug. 27.			July 17.			Feb. 2.			Sept. 16.		
Days since Calving	53			94			259			33		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.9	14.6	16.4	17.2	18.8	18.6	15.6	13.2	14.8	21.6	22.8	22.5
Weight of Milk, 2nd day	17.3	16.6	17.0	16.9	16.7	17.6	15.0	14.2	13.5	22.4	22.2	21.6
Total	33.2	31.2	33.4	34.1	35.5	36.2	30.6	27.4	28.3	44.0	45.0	44.1
Average	16.6	15.6	16.7	17.05	17.75	18.1	15.3	13.7	14.15	22.0	22.5	22.05
Percentage Composition of the Milk. Fat	5.42	5.43	4.95	6.83	5.15	6.31	7.83	5.30	5.04	4.76	5.16	4.63
Percentage Composition of the Milk. Solids other than Fat	8.82	9.51	9.33	9.37	9.31	9.35	9.05	9.16	9.20	9.24	9.18	9.21
Percentage Composition of the Milk. Total Solids	14.24	14.94	14.28	16.20	14.46	15.66	16.88	14.46	14.24	14.00	14.34	13.84
Actual weight of Fat, in lbs.	0.900	0.847	0.827	1.165	0.914	1.142	1.198	0.726	0.713	1.047	1.161	1.021
Actual weight of Solids other than Fat, in lbs. ...	1.46	1.48	1.56	1.60	1.65	1.69	1.38	1.25	1.30	2.03	2.07	2.03
Points—												
For weight of Milk (lbs.)	48.90			52.90			43.15			66.55		
For weight of Fat (lbs. × 20)	51.48			64.42			52.74			64.58		
For weight of Solids other than Fat (lbs. × 4) ...	18.00			19.76			15.72			24.52		
Total Points for Milk	118.38			137.08			111.61			155.65		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	118.38			137.08			111.61			155.65		
Points for time since Calving ...	1.3			5.4			12.0			—		
TOTAL POINTS GAINED ...	**119.68**			**142.48**			**123.61**			**155.65**		
Points gained for Milk per 1,000 lbs. live weight ...	96.56			130.18			102.87			139.72		
Points for time since Calving	1.3			5.4			12.0			—		
Total Points per 1,000 lbs. live weight	97.86			135.58			114.87			139.72		
Remarks and Awards	Highly Commended.			3rd Prize.			Highly Commended.			2nd Prize.		

CLASS 23.—GUERNSEY COW (BORN AFTER 1ST AUGUST, 1931)—*Continued.*

Number	296			297			298			300		
Name	Valentine's Queen of Payhay.			Bella's Cora 4th of Les Jetteries.			Serena of Myrtle Place.			Hartwell Princess.		
Born	Apr. 20, 1932.			Mar. 25, 1932.			Dec. 21, 1931.			May 12, 1932.		
Live weight, in lbs.	1,024			992			978			1,073		
Last Calved	July 10.			Sept. 5.			Aug. 30.			May 4.		
Days since Calving	101			44			50			168		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	18.1	16.5	15.8	23.1	21.8	22.9	14.5	15.4	16.0	11.5	11.8	11.2
Weight of Milk, 2nd day	18.6	15.4	14.2	25.5	26.0	25.8	16.7	16.3	17.2	12.2	11.6	12.5
Total	36.7	31.9	30.0	48.6	47.8	48.7	31.2	31.7	33.2	23.7	23.4	23.7
Average	18.35	15.95	15.0	24.3	23.9	24.35	15.6	15.85	16.6	11.85	11.7	11.85
Percentage Composition of the Milk. Fat	6.94	5.37	5.00	5.42	6.14	6.14	4.61	5.29	4.60	5.70	5.76	4.94
Percentage Composition of the Milk. Solids other than Fat	10.10	9.63	9.56	8.82	8.98	8.96	8.93	8.67	8.90	9.42	9.16	9.12
Percentage Composition of the Milk. Total Solids	17.04	15.00	14.56	14.24	15.12	15.10	13.54	13.96	13.50	15.12	14.92	14.06
Actual weight of Fat, in lbs.	1.273	0.857	0.750	1.317	1.467	1.495	0.719	0.838	0.764	0.675	0.674	0.585
Actual weight of Solids other than Fat, in lbs.	1.85	1.54	1.43	2.14	2.15	2.18	1.39	1.37	1.48	1.12	1.07	1.08
Points—												
For weight of Milk (lbs.)	49.30			72.55			48.05			35.40		
For weight of Fat (lbs. × 20)	57.60			85.58			46.42			38.68		
For weight of Solids other than Fat (lbs. × 4)	19.28			25.88			16.96			13.08		
Total Points for Milk	126.18			184.01			111.43			87.16		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	126.18			184.01			111.43			87.16		
Points for time since Calving	6.1			0.4			1.0			12.0		
TOTAL POINTS GAINED	**132.28**			**184.41**			**112.43**			**99.16**		
Points gained for Milk per 1,000 lbs. live weight	123.22			185.49			113.94			81.23		
Points for time since Calving	6.1			0.4			1.0			12.0		
Total Points per 1,000 lbs. live weight	129.32			185.89			114.94			93.23		
Remarks and Awards	Reserve.			1st Prize.			Highly Commended.			Highly Commended.		

CLASS 24.—GUERNSEY HEIFER, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, AND WHICH HAS PRODUCED HER FIRST AND ONLY CALF AT OR UNDER THE AGE OF TWO YEARS AND NINE MONTHS.

Number	302			303			304			305		
Name	Bella of Clover Top.			Mapleton Sequel's Primrose 2nd.			Cyrene's Hope 3rd of the Rouvets.			Spring Beauty of Trepieds.		
Born	Feb. 4, 1934.			Aug. 31, 1933.			Mar. 8, 1934.			Mar. 15, 1934.		
Live weight, in lbs.	1,040			849			993			865		
Last Calved	May 15.			Apr. 14.			Aug. 2.			Sept. 9.		
Days since Calving	157			188			78			40		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	13.7	13.3	13.4	1.5	2.2	4.6	12.0	11.1	11.3	17.2	19.6	17.5
Weight of Milk, 2nd day	13.1	13.5	14.4	6.6	7.8	8.1	11.3	10.8	10.9	18.9	18.6	19.3
Total	26.8	26.8	27.8	8.1	10.0	12.7	23.3	21.9	22.2	36.1	38.2	36.8
Average	13.4	13.4	13.9	4.05	5.0	6.35	11.65	10.95	11.1	18.05	19.1	18.4
Percentage Composition of the Milk. Fat	5.58	4.68	5.25	12.08	12.11	8.17	7.05	6.02	5.32	3.54	4.96	4.70
Solids other than Fat	9.68	9.52	9.63	11.92	11.53	10.33	10.19	9.16	9.28	8.94	8.78	8.80
Total Solids	15.26	14.20	14.88	24.00	23.64	18.50	17.24	15.18	14.60	12.48	13.74	13.50
Actual weight of Fat, in lbs.	0.748	0.627	0.730	0.489	0.606	0.519	0.821	0.659	0.591	0.639	0.947	0.865
Actual weight of Solids other than Fat, in lbs.	1.30	1.28	1.34	0.48	0.58	0.66	1.19	1.00	1.03	1.61	1.68	1.62
Points—												
For weight of Milk (lbs.)	40.70			15.40			33.70			55.55		
For weight of Fat (lbs. × 20)	42.10			32.28			41.42			49.02		
For weight of Solids other than Fat (lbs. × 4)	15.68			6.88			12.88			19.64		
Total Points for Milk	98.48			54.56			88.00			124.21		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	98.48			54.56			88.00			124.21		
Points for time since Calving	11.7			12.0			3.8			—		
TOTAL POINTS GAINED	**110.18**			**66.56**			**91.80**			**124.21**		
Points gained for Milk per 1,000 lbs. live weight	94.67			64.26			88.62			143.60		
Points for time since Calving	11.7			12.0			3.8			—		
Total Points per 1,000 lbs. live weight	106.39			76.26			92.42			143.60		
Remarks and Awards	2nd Prize.						3rd Prize.			1st Prize.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN ON OR PREVIOUS TO 1ST AUGUST, 1931. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 8,000 LBS. AT FIVE YEARS OLD OR OVER, OR 6,000 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS, OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number Name	306 Dreaming Fleckie Lass.			309 Queen's Dream Lady.			310 Playmate of Oaklands.			312 Kafovite.		
Born	May 31, 1930.			Feb. 25, 1931.			May 17, 1929.			June 20, 1931.		
Live weight, in lbs.	900			937			885			954		
Last Calved	Aug. 17.			May 2.			Aug. 26.			Sept. 8		
Days since Calving	63			170			54			41		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	16.8	22.6	20.5	13.4	15.8	14.3	18.6	19.1	19.2	*20.0	21.3	21.9
Weight of Milk, 2nd day	17.7	21.3	18.3	14.2	16.3	13.5	18.4	19.3	19.1	20.1	18.8	17.6
Total	34.5	43.9	38.8	27.6	32.1	27.8	37.0	38.4	38.3	40.1	40.1	39.5
Average	17.25	21.95	19.4	13.8	16.05	13.9	18.5	19.2	19.15	20.05	20.05	19.75
Percentage Composition of the Milk. Fat	5.14	6.99	6.60	5.90	4.88	4.89	4.93	4.80	4.68	6.46	5.33	5.11
Percentage Composition of the Milk. Solids other than Fat	9.68	9.33	9.32	9.74	9.46	9.23	8.99	9.60	9.24	9.20	9.19	9.03
Percentage Composition of the Milk. Total Solids	14.82	16.32	15.92	15.64	14.34	14.12	13.92	14.40	13.92	15.66	14.52	14.14
Actual weight of Fat, in lbs.	0.887	1.534	1.280	0.814	0.783	0.680	0.912	0.922	0.896	1.295	1.069	1.009
Actual weight of Solids other than Fat, in lbs.	1.67	2.05	1.81	1.34	1.52	1.28	1.66	1.84	1.77	1.84	1.84	1.78
Points—												
For weight of Milk (lbs.)	58.60			43.75			56.85			59.85		
For weight of Fat (lbs. × 20)	74.02			45.54			54.60			67.46		
For weight of Solids other than Fat (lbs. × 4)	22.12			16.56			21.08			21.84		
Total Points for Milk	154.74			105.85			132.53			149.15		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	154.74			105.85			132.53			149.15		
Points for time since Calving	2.3			12.0			1.4			0.1		
TOTAL POINTS GAINED	**157.04**			**117.85**			**133.93**			**149.25**		
Points gained for Milk per 1,000 lbs. live weight	171.93			112.97			149.75			156.34		
Points for time since Calving	2.3			12.0			1.4			0.1		
Total Points per 1,000 lbs. live weight	174.23			124.97			151.15			156.44		
Remarks and Awards	1st Prize.			Highly Commended.			5th Prize.			2nd Prize. *Broken pail. Weight of milk estimated by Judges.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	314			315			316			319		
Name	White Hill Happy May.			Wonderful Peggy.			May Day.			Wolvers Bess.		
Born	Mar. 21, 1930.			Mar. 25, 1931.			May 1, 1928.			June 21, 1931.		
Live weight, in lbs.	896			896			876			1,016		
Last Calved	Aug. 18.			Apr. 25.			Dec. 26, 1935.			July 28.		
Days since Calving	62			177			296			83		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	22.4	21.1	20.1	11.2	12.7	12.6	15.4	13.4	14.1	15.6	15.7	14.8
Weight of Milk, 2nd day	23.0	22.8	20.1	12.5	13.7	13.1	14.4	14.1	12.0	15.0	14.0	14.1
Total	45.4	43.9	40.2	23.7	26.4	25.7	29.8	27.5	26.1	30.6	29.7	28.9
Average	22.7	21.95	20.1	11.85	13.2	12.85	14.9	13.75	13.05	15.3	14.85	14.45
Percentage Composition of the Milk. Fat	3.71	4.83	4.33	6.52	5.03	5.80	5.15	5.57	5.88	5.62	4.86	5.11
Percentage Composition of the Milk. Solids other than Fat	9.05	9.09	9.43	9.74	9.37	9.44	8.77	8.75	9.00	9.84	9.28	9.37
Percentage Composition of the Milk. Total Solids	12.76	13.92	13.76	16.26	14.40	15.24	13.92	14.32	14.88	15.46	14.14	14.48
Actual weight of Fat, in lbs.	0.842	1.060	0.870	0.773	0.664	0.745	0.767	0.766	0.767	0.860	0.722	0.738
Actual weight of Solids other than Fat, in lbs.	2.05	2.00	1.90	1.15	1.24	1.21	1.31	1.20	1.17	1.51	1.28	1.35
Points—												
For weight of Milk (lbs.)	64.75			37.90			41.70			44.60		
For weight of Fat (lbs. × 20)	55.44			43.64			46.00			46.40		
For weight of Solids other than Fat (lbs. × 4)	23.80			14.40			14.72			16.96		
Total Points for Milk	143.99			95.94			102.42			107.96		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	143.99			95.94			102.42			107.96		
Points for time since Calving	2.2			12.0			12.0			4.3		
TOTAL POINTS GAINED	**146.19**			**107.94**			**114.42**			**112.26**		
Points gained for Milk per 1,000 lbs. live weight	160.70			107.08			116.92			106.26		
Points for time since Calving	2.2			12.0			12.0			4.3		
Total Points per 1,000 lbs. live weight	162.90			119.08			128.92			110.56		
Remarks and Awards	3rd Prize.			Highly Commended.			Highly Commended.			Highly Commended.		

Class 25.—JERSEY COW, English or Island Bred (Born on or previous to 1st August, 1931)—*Continued.*

Number	321			322			324			326		
Name	Cambraie Elfa 2nd.			Normanby Chloe.			Pearcelands Eileen 10th.			Stonehurst Patrician's Sepia.		
Born	Nov. 10, 1930.			Apr. 3, 1931.			July 2, 1931.			Apr. 2, 1928.		
Live weight, in lbs.	858			890			885			836		
Last Calved	June 5.			Apr. 23.			Mar. 29.			Aug. 5.		
Days since Calving	136			179			204			75		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.8	14.4	14.3	17.4	17.8	15.7	16.6	16.5	16.0	17.0	16.8	16.1
Weight of Milk, 2nd day	11.8	13.8	11.4	16.4	16.5	16.6	15.6	16.8	16.1	16.7	16.3	15.9
Total	23.6	28.2	25.7	33.8	34.3	32.3	32.2	33.3	32.1	33.7	33.1	32.0
Average	11.8	14.1	12.85	16.9	17.15	16.15	16.1	16.65	16.05	16.85	16.55	16.0
Percentage Composition of the Milk. Fat	7.24	7.34	5.63	5.00	5.44	5.19	7.26	6.13	5.17	5.20	5.58	5.15
Percentage Composition of the Milk. Solids other than Fat	10.22	9.66	9.31	9.38	9.10	9.45	9.42	9.81	9.55	8.88	8.78	9.19
Percentage Composition of the Milk. Total Solids	17.46	17.00	14.94	14.38	14.54	14.64	16.68	15.94	14.72	14.08	14.36	14.34
Actual weight of Fat, in lbs.	0.854	1.035	0.723	0.845	0.933	0.838	1.169	1.021	0.830	0.876	0.923	0.824
Actual weight of Solids other than Fat, in lbs.	1.21	1.36	1.20	1.59	1.56	1.53	1.52	1.63	1.53	1.50	1.45	1.47
Points—												
For weight of Milk (lbs.)	38.75			50.20			48.80			49.40		
For weight of Fat (lbs. × 20)	52.24			52.32			60.40			52.46		
For weight of Solids-other than Fat (lbs. × 4)	15.08			18.72			18.72			17.68		
Total Points for Milk	106.07			121.24			127.92			119.54		
Deductions	—			—			—			—		
Total Points Gained for Milk	106.07			121.24			127.92			119.54		
Points for time since Calving	9.6			12.0			12.0			3.5		
TOTAL POINTS GAINED	**115.67**			**133.24**			**139.92**			**123.04**		
Points gained for Milk per 1,000 lbs. live weight	123.62			136.22			144.54			142.99		
Points for time since Calving	9.6			12.0			12.0			3.5		
Total Points per 1,000 lbs. live weight	133.22			148.22			156.54			146.49		
Remarks and Awards	Highly Commended.			Reserve.			4th Prize.			Highly Commended.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	327			330			331			333		
Name	April Vinnie.			Eastwood Parlourmaid.			Lucette.			Wotton Bella Donna.		
Born	Apr. 1, 1930.			May 5, 1927.			May 7, 1930.			June 25, 1930.		
Live weight, in lbs.	950			918			858			1,000		
Last Calved	June 27.			Aug. 8.			Sept. 14.			Sept. 12.		
Days since Calving	114			72			35			37		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	13.6	13.1	12.9	15.7	16.1	15.6	14.6	20.1	17.3	17.5	23.4	21.9
Weight of Milk, 2nd day	13.0	13.3	10.7	14.9	15.3	14.6	16.8	19.0	17.9	22.4	23.0	21.6
Total	26.6	26.4	23.6	30.6	31.4	30.2	31.4	39.1	35.2	39.9	46.4	43.5
Average	13.3	13.2	11.8	15.3	15.7	15.1	15.7	19.55	17.6	19.95	23.2	21.75
Percentage Composition of the Milk. Fat	7.80	7.34	4.69	5.46	6.98	6.29	3.60	5.29	4.14	2.27	4.16	5.09
Percentage Composition of the Milk. Solids other than Fat	9.42	9.40	9.49	9.66	9.88	9.67	9.68	9.87	9.56	9.17	8.92	9.17
Percentage Composition of the Milk. Total Solids	17.20	16.74	14.18	15.14	16.86	15.96	13.28	15.16	13.70	11.44	13.08	14.26
Actual weight of Fat, in lbs.	1.037	0.969	0.553	0.835	1.096	0.950	0.565	1.034	0.729	0.453	0.965	1.107
Actual weight of Solids other than Fat, in lbs. ...	1.25	1.24	1.12	1.48	1.55	1.46	1.52	1.93	1.68	1.83	2.07	1.99
Points—												
For weight of Milk (lbs.)	38.30			46.10			52.85			64.90		
For weight of Fat (lbs. × 20)	51.18			57.62			46.56			52.50		
For weight of Solids other than Fat (lbs. × 4) ...	14.44			17.96			20.52			22.56		
Total Points for Milk	103.92			121.68			119.93			138.96		
Deductions	—			—			—			10.0		
TOTAL POINTS GAINED FOR MILK	103.92			121.68			119.93			128.96		
Points for time since Calving ...	7.4			3.2			—			—		
TOTAL POINTS GAINED ...	**111.32**			**124.88**			**119.93**			**128.96**		
Points gained for Milk per 1,000 lbs. live weight ...	109.39			132.55			139.78			128.96		
Points for time since Calving	7.4			3.2			—			—		
Total Points per 1,000 lbs. live weight	116.79			135.75			139.78			128.96		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 25.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

CLASS 26.—JERSEY COW, ENGLISH OR ISLAND BRED, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. BORN AFTER 1ST AUGUST, 1931, AND WHICH HAS PRODUCED TWO OR MORE CALVES.

Number	334			335			336			337		
Name	Hockley May Belle.			Hockley Fern.			Foxbury Dinard 3rd.			Surville Scorcher's Present.		
Born	July 24, 1931.			July 15, 1931.			May 18, 1932.			Apr. 5, 1932.		
Live weight, in lbs.	821			834			958			955		
Last Calved	June 16.			May 13.			Sept. 5.			June 26.		
Days since Calving	125			159			44			115		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	15.7	17.7	16.6	8.9	11.1	11.1	14.0	14.5	15.3	15.6	14.4	15.7
Weight of Milk, 2nd day	17.0	17.4	15.2	12.0	11.6	11.5	12.9	13.8	14.4	15.9	14.2	12.1
Total	32.7	35.1	31.8	20.9	22.7	22.6	26.9	28.3	29.7	31.5	28.6	27.8
Average	16.35	17.55	15.9	10.45	11.35	11.3	13.45	14.15	14.85	15.75	14.3	13.9
Percentage Composition of the Milk. Fat	4.23	6.27	5.05	6.82	7.44	5.73	4.20	6.00	4.60	5.06	4.57	3.40
Percentage Composition of the Milk. Solids other than Fat	9.41	9.19	8.85	9.20	8.94	8.73	9.56	9.84	9.20	9.16	9.35	8.96
Percentage Composition of the Milk. Total Solids	13.64	15.46	13.90	16.02	16.38	14.46	13.76	15.84	13.80	14.22	13.92	12.36
Actual weight of Fat, in lbs.	0.692	1.100	0.803	0.713	0.844	0.647	0.565	0.849	0.683	0.797	0.654	0.473
Actual weight of Solids other than Fat, in lbs.	1.54	1.61	1.41	0.96	1.01	0.99	1.29	1.39	1.37	1.44	1.34	1.25
Points—												
For weight of Milk (lbs.)	49.80			33.10			42.45			43.95		
For weight of Fat (lbs. × 20)	51.90			44.08			41.94			38.48		
For weight of Solids other than Fat (lbs. × 4)	18.24			11.84			16.20			16.12		
Total Points for Milk	119.94			89.02			100.59			98.55		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	119.94			89.02			100.59			98.55		
Points for time since Calving	8.5			11.9			0.4			7.5		
TOTAL POINTS GAINED	**128.44**			**100.92**			**100.99**			**106.05**		
Points gained for Milk per 1,000 lbs. live weight	146.09			106.74			105.00			103.19		
Points for time since Calving	8.5			11.9			0.4			7.5		
Total Points per 1,000 lbs. live weight	154.59			118.64			105.40			110.69		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.			Highly Commended.		

CLASS 26.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number ...	338			345			346			347		
Name ...	Moreland Tulip.			Wotton Belinda.			Empire Mary.			Everdon Merry Maid.		
Born ...	Apr. 23, 1932.			May 18, 1932.			May 24, 1933.			June 1, 1933.		
Live weight, in lbs. ...	804			1,036			714			790		
Last Calved ...	Sept. 1.			May 23.			Aug. 13.			Aug. 26.		
Days since Calving ...	48			149			67			54		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day ...	11.9	15.9	15.2	13.6	13.4	13.4	19.8	17.4	17.4	14.5	14.1	14.3
Weight of Milk, 2nd day ...	14.4	15.4	13.5	14.2	12.8	14.3	16.2	18.2	18.2	14.4	11.8	8.9
Total ...	26.3	31.3	28.7	27.8	26.2	27.7	36.0	35.6	35.6	28.9	25.9	23.2
Average ...	13.15	15.65	14.35	13.9	13.1	13.85	18.0	17.8	17.8	14.45	12.95	11.6
Percentage Composition of the Milk. Fat ...	4.13	4.93	3.92	6.06	6.63	6.55	6.12	6.59	4.73	4.07	4.17	3.84
Solids other than Fat ...	9.89	9.73	9.64	9.46	9.45	9.59	8.84	9.07	8.93	9.47	9.49	9.58
Total Solids ...	14.02	14.66	13.56	15.52	16.08	16.14	14.96	15.66	13.66	14.44	13.66	13.42
Actual weight of Fat, in lbs. ...	0.543	0.772	0.563	0.842	0.869	0.907	1.102	1.173	0.842	0.718	0.540	0.445
Actual weight of Solids other than Fat, in lbs. ...	1.30	1.52	1.38	1.31	1.24	1.33	1.59	1.61	1.59	1.37	1.23	1.11
Points—												
For weight of Milk (lbs.) ...	43.15			40.85			53.60			39.00		
For weight of Fat (lbs. × 20) ...	37.56			52.36			62.34			34.06		
For weight of Solids other than Fat (lbs. × 4) ...	16.80			15.52			19.16			14.84		
Total Points for Milk ...	97.51			108.73			135.10			87.90		
Deductions ...	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	97.51			108.73			135.10			87.90		
Points for time since Calving ...	0.8			10.9			2.7			1.4		
TOTAL POINTS GAINED ...	**98.31**			**119.63**			**137.80**			**89.30**		
Points gained for Milk per 1,000 lbs. live weight ...	121.28			104.95			189.22			111.27		
Points for time since Calving ...	0.8			10.9			2.7			1.4		
Total Points per 1,000 lbs. live weight ...	122.08			115.85			191.92			112.67		
Remarks and Awards ...	Highly Commended.			2nd Prize.			1st Prize.			Highly Commended.		

CLASS 26.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	348			349			350			352		
Name	Bryne.			Allangate Airiel.			Salsue.			Kingston Golden Blush.		
Born	Feb. 17, 1932.			Sept. 15, 1933.			Sept. 5, 1931.			Mar. 1, 1933.		
Live weight, in lbs.	1,030			902			849			932		
Last Calved	Mar. 23.			Aug. 12.			Sept. 29.			Sept. 22.		
Days since Calving	210			68			20			27		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	14.7	13.8	13.9	8.7	18.1	18.4	13.1	13.9	13.9	16.4	16.5	16.0
Weight of Milk, 2nd day	13.7	14.6	14.2	13.6	17.9	17.1	14.5	14.0	13.6	14.5	15.7	15.4
Total	28.4	28.4	28.1	22.3	36.0	35.5	27.6	27.9	27.5	30.9	32.2	31.4
Average	14.2	14.2	14.05	11.15	18.0	17.75	13.8	13.95	13.75	15.45	16.1	15.7
Percentage Composition of the Milk. Fat	5.62	5.14	5.49	2.53	4.16	4.60	7.44	6.38	5.58	5.69	5.75	5.57
Percentage Composition of the Milk. Solids other than Fat	9.48	8.96	8.89	10.01	9.80	9.76	10.10	9.66	9.88	9.49	9.51	9.53
Percentage Composition of the Milk. Total Solids	15.10	14.10	14.38	12.54	13.96	14.36	17.54	16.04	15.46	15.18	15.26	15.10
Actual weight of Fat, in lbs.	0.798	0.730	0.771	0.282	0.749	0.817	1.027	0.890	0.767	0.879	0.926	0.874
Actual weight of Solids other than Fat, in lbs. ...	1.35	1.27	1.25	1.12	1.76	1.73	1.39	1.35	1.36	1.47	1.53	1.50
Points—												
For weight of Milk (lbs.)	42.45			46.90			41.50			47.25		
For weight of Fat (lbs. × 20)	45.98			36.96			53.68			53.58		
For weight of Solids other than Fat (lbs. × 4) ...	15.48			18.44			16.40			18.00		
Total Points for Milk	103.91			102.30			111.58			118.83		
Deductions	—			10.0			—			—		
TOTAL POINTS GAINED FOR MILK	103.91			92.30			111.58			118.83		
Points for time since Calving ...	12.0			2.8			—			—		
TOTAL POINTS GAINED ...	**115.91**			**95.10**			**111.58**			**118.83**		
Points gained for Milk per 1,000 lbs. live weight ...	100.88			102.33			131.43			127.50		
Points for time since Calving	12.0			2.8			—			—		
Total Points per 1,000 lbs. live weight	112.88			105.13			131.43			127.50		
Remarks and Awards	Reserve.			Highly Commended.			Highly Commended.			3rd Prize.		

CLASS 26.—JERSEY COW, ENGLISH OR ISLAND BRED (BORN ON OR PREVIOUS TO 1ST AUGUST, 1931)—*Continued.*

Number	354			355			356			360		
Name	Charlton Abbotts Oxford's Ulrica.			Charlton Abbotts Sweetbread.			Spetchley Emerald.			Conyngham Friendship.		
Born	Jan. 7, 1932.			May 27, 1933.			Feb. 28, 1933.			Apr. 25, 1932.		
Live weight, in lbs.	984			874			856			920		
Last Calved	Aug. 20.			June 23.			May 8.			July 3.		
Days since Calving	60			118			164			108		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	14.9	15.5	15.7	15.9	16.9	15.8	10.6	15.4	12.7	12.0	14.5	13.6
Weight of Milk, 2nd day	13.0	13.4	14.0	15.7	15.7	15.3	12.4	16.2	13.7	13.0	13.2	13.6
Total	27.9	28.9	29.7	31.6	32.6	31.1	23.0	31.6	26.4	25.0	27.7	27.2
Average	13.95	14.45	14.85	15.8	16.3	15.55	11.5	15.8	13.2	12.5	13.85	13.6
Percentage Composition of the Milk. Fat	3.43	4.60	4.42	4.42	5.30	4.41	3.92	5.76	3.92	3.65	3.66	5.76
Percentage Composition of the Milk. Solids other than Fat	8.48	8.30	8.50	8.94	8.70	8.50	9.60	9.30	9.34	9.43	9.08	9.06
Percentage Composition of the Milk. Total Solids	11.91	12.90	12.92	13.36	14.00	12.91	13.52	15.06	13.26	13.08	12.74	14.82
Actual weight of Fat, in lbs.	0.478	0.665	0.656	0.698	0.864	0.686	0.451	0.910	0.517	0.456	0.507	0.783
Actual weight of Solids other than Fat, in lbs.	1.18	1.20	1.26	1.41	1.42	1.32	1.10	1.47	1.23	1.18	1.26	1.23
Points—												
For weight of Milk (lbs.)	43.25			47.65			40.50			39.95		
For weight of Fat (lbs. × 20)	35.98			44.96			37.56			34.92		
For weight of Solids other than Fat (lbs. × 4)	14.56			16.60			15.20			14.68		
Total Points for Milk	93.79			109.21			93.26			89.55		
Deductions	20.0			—			—			—		
TOTAL POINTS GAINED FOR MILK	73.79			109.21			93.26			89.55		
Points for time since Calving	2.0			7.8			12.0			6.8		
TOTAL POINTS GAINED	**75.79**			**117.01**			**105.26**			**96.35**		
Points gained for Milk per 1,000 lbs. live weight	74.99			124.95			108.95			97.34		
Points for time since Calving	2.0			7.8			12.0			6.8		
Total Points per 1,000 lbs. live weight	76.99			132.75			120.95			104.14		
Remarks and Awards				4th Prize.			Highly Commended.			Highly Commended.		

CLASS 27.—JERSEY HEIFER, ENGLISH OR ISLAND BRED, ENTERED IN OR ELIGIBLE FOR THE HERD BOOK, AND WHICH HAS PRODUCED HER FIRST AND ONLY CALF AT OR UNDER THE AGE OF 2½ YEARS.

Number ... ... Name	363 Pacified Princess.			365 Ovaltine Orchis.			366 Starting Silver 3rd.			368 Wolvers Pamela.		
Born	Apr. 8, 1934.			Aug. 26, 1934.			Mar. 17, 1934.			Aug. 9, 1934.		
Live weight, in lbs.	748			781			837			686		
Last Calved	Sept. 25.			Sept. 17.			July 17.			Aug. 25.		
Days since Calving	24			32			94			55		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.2	12.5	11.3	11.0	11.2	11.0	13.6	13.0	12.8	11.6	10.9	12.6
Weight of Milk, 2nd day	11.6	12.5	12.2	10.4	10.8	11.5	15.5	13.4	13.1	10.7	11.1	11.0
Total	22.8	25.0	23.5	21.4	22.0	22.5	29.1	26.4	25.9	22.3	22.0	23.6
Average	11.4	12.5	11.75	10.7	11.0	11.25	14.55	13.2	12.95	11.15	11.0	11.8
Percentage Composition of the Milk. Fat	4.95	4.74	5.69	6.02	5.39	4.58	6.85	6.13	5.64	4.11	3.54	4.26
Percentage Composition of the Milk. Solids other than Fat	9.45	9.44	9.55	9.86	10.17	9.68	9.32	9.35	9.50	9.43	9.66	9.62
Percentage Composition of the Milk. Total Solids	14.40	14.18	15.24	15.88	15.56	14.26	16.16	15.48	15.14	13.54	13.20	13.88
Actual weight of Fat, in lbs.	0.564	0.593	0.669	0.644	0.593	0.515	0.995	0.809	0.730	0.458	0.389	0.503
Actual weight of Solids other than Fat, in lbs. ...	1.08	1.18	1.12	1.06	1.12	1.09	1.36	1.23	1.23	1.05	1.06	1.14
Points—												
For weight of Milk (lbs.)	35.65			32.95			40.70			33.95		
For weight of Fat (lbs. × 20)	36.52			35.04			50.68			27.00		
For weight of Solids other than Fat (lbs. × 4) ...	13.52			13.08			15.28			13.00		
Total Points for Milk	85.69			81.07			106.66			73.95		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	85.69			81.07			106.66			73.95		
Points for time since Calving ...	—			—			5.4			1.5		
TOTAL POINTS GAINED ...	**85.69**			**81.07**			**112.06**			**75.45**		
Points gained for Milk per 1,000 lbs. live weight ...	114.56			103.80			127.43			107.80		
Points for time since Calving	—			—			5.4			1.5		
Total Points per 1,000 lbs. live weight	114.56			103.80			132.83			109.30		
Remarks and Awards	Highly Commended.			Highly Commended.			1st Prize.			Highly Commended.		

CLASS 27.—JERSEY HEIFER, ENGLISH OR ISLAND BRED—*Continued.*

Number	370			371			373			377		
Name	Normanby King's Arum Lily.			Normanby Victory Rosie's Pride.			The Poplars Pride Girl.			Light Bonnie.		
Born	Mar. 12, 1934.			July 8, 1934.			June 4, 1934.			Apr. 30, 1934.		
Live weight, in lbs.	842			716			631			768		
Last Calved	Apr. 3.			July 5.			July 22.			July 8.		
Days since Calving	199			106			89			103		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	13.1	13.7	13.2	12.8	13.0	11.5	7.1	7.1	7.3	12.3	12.2	11.9
Weight of Milk, 2nd day	12.9	12.5	13.3	11.8	11.8	11.2	7.7	7.3	7.5	11.2	13.3	11.0
Total	26.0	26.2	26.5	24.6	24.8	22.7	14.8	14.4	14.8	23.5	25.5	22.9
Average	13.0	13.1	13.25	12.3	12.4	11.35	7.4	7.2	7.1	11.75	12.75	11.45
Percentage Composition of the Milk. Fat	4.69	4.79	4.99	4.75	5.26	5.49	5.76	5.12	5.75	6.21	4.49	6.47
Percentage Composition of the Milk. Solids other than Fat	9.55	9.17	9.21	9.45	9.26	9.81	9.46	10.14	9.71	9.69	9.31	9.65
Percentage Composition of the Milk. Total Solids	14.24	13.96	14.20	14.20	14.52	15.30	15.22	15.26	15.46	15.90	13.80	16.12
Actual weight of Fat, in lbs.	0.610	0.627	0.661	0.584	0.652	0.623	0.426	0.369	0.426	0.730	0.572	0.741
Actual weight of Solids other than Fat, in lbs. ...	1.24	1.20	1.22	1.16	1.15	1.11	0.70	0.73	0.72	1.14	1.19	1.10
Points—												
For weight of Milk (lbs.)	39.35			36.05			22.00			35.95		
For weight of Fat (lbs. × 20)	37.96			37.18			24.42			40.86		
For weight of Solids other than Fat (lbs. × 4) ...	14.64			13.68			8.60			13.72		
Total Points for Milk	91.95			86.91			55.02			90.53		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	91.95			86.91			55.02			90.53		
Points for time since Calving ...	12.0			6.6			4.9			6.3		
TOTAL POINTS GAINED ...	**103.95**			**93.51**			**59.92**			**96.83**		
Points gained for Milk per 1,000 lbs. live weight ...	109.20			121.38			86.78			117.88		
Points for time since Calving	12.0			6.6			4.9			6.3		
Total Points per 1,000 lbs. live weight	121.20			127.98			91.68			124.18		
Remarks and Awards	2nd Prize.			Reserve.						3rd Prize.		

CLASS 27.—JERSEY HEIFER, ENGLISH OR ISLAND BRED—*Continued.*

Number	379			381			383		
Name	Spetchley Flapper.			White Hill Dairylike Deauvillaise.			White Hill Dairylike Beauty.		
Born	June 6, 1934.			Aug. 12, 1934.			Aug. 29, 1934.		
Live weight, in lbs.	736			702			754		
Last Calved	July 16.			Sept 11.			Sept. 2.		
Days since Calving	95			38			47		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.4	8.6	7.4	12.6	13.5	12.4	11.2	11.4	11.1
Weight of Milk, 2nd day	5.4	9.5	7.5	11.3	12.2	12.5	10.3	11.5	10.7
Total	16.8	18.1	14.9	23.9	25.7	24.9	21.5	22.9	21.8
Average	8.4	9.05	7.45	11.95	12.85	12.45	10.75	11.45	10.9
Percentage Composition of the Milk. Fat	4.89	5.02	6.89	5.18	4.72	5.20	4.44	5.10	5.22
Percentage Composition of the Milk. Solids other than Fat	9.43	8.62	8.69	10.00	9.78	9.80	9.86	9.80	9.82
Percentage Composition of the Milk. Total Solids	14.32	13.64	15.58	15.18	14.50	15.00	14.30	14.90	15.04
Actual weight of Fat, in lbs.	0.411	0.454	0.513	0.619	0.607	0.647	0.477	0.584	0.569
Actual weight of Solids other than Fat, in lbs.	0.79	0.78	0.65	1.20	1.26	1.22	1.06	1.12	1.07
Points—									
For weight of Milk (lbs.)	24.90			37.25			33.10		
For weight of Fat (lbs. × 20)	27.56			37.46			32.60		
For weight of Solids other than Fat (lbs. × 4)	8.88			14.72			13.00		
Total Points for Milk	61.34			89.43			78.70		
Deductions	—			—			—		
TOTAL POINTS GAINED FOR MILK	61.34			89.43			78.70		
Points for time since Calving	5.5			—			0.7		
TOTAL POINTS GAINED	**66.84**			**89.43**			**79.40**		
Points gained for Milk per 1,000 lbs. live weight	83.34			127.39			104.38		
Points for time since Calving	5.5			—			0.7		
Total Points per 1,000 lbs. live weight	88.84			127.39			105.08		
Remarks and Awards	Highly Commended.			Highly Commended.			Highly Commended.		

Class 28.—KERRY COW, entered in or accepted for the Herd Book. Cows entered in this class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society.

Number	384			385			386			387		
Name	Ard Cacin Doe.			Barrington Dame.			Valencia Juno 2nd.			Summerhill Tricia 2nd.		
Born	Dec. 23, 1930.			Mar. 26, 1933.			Mar. 25, 1933.			Mar. 31, 1932.		
Live weight, in lbs.	950			1,060			1,051			802		
Last Calved	May 31.			July 10.			July 28.			Aug. 30.		
Days since Calving	141			101			83			50		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	11.6	12.8	12.5	8.0	8.1	7.0	8.3	9.7	9.8	19.5	18.0	18.9
Weight of Milk, 2nd day	12.5	12.0	12.1	9.5	7.8	7.9	10.8	11.3	9.8	19.1	18.7	17.9
Total	24.1	24.8	24.6	17.5	15.9	14.9	19.1	21.0	19.6	38.6	36.7	36.8
Average	12.05	12.4	12.3	8.75	7.95	7.45	9.55	10.5	9.8	19.3	18.35	18.4
Percentage Composition of the Milk. Fat	4.26	5.24	4.32	2.82	2.73	2.39	3.72	2.80	3.05	4.67	4.12	2.85
Solids other than Fat	9.56	9.28	9.22	10.38	10.43	10.19	9.68	9.52	9.27	9.17	9.24	8.95
Total Solids	13.82	14.52	13.54	13.20	13.16	12.58	13.40	12.32	12.32	13.84	13.36	11.80
Actual weight of Fat, in lbs.	0.513	0.650	0.531	0.247	0.217	0.178	0.355	0.294	0.299	0.901	0.756	0.524
Actual weight of Solids other than Fat, in lbs.	1.15	1.15	1.13	0.91	0.83	0.76	0.92	1.00	0.91	1.77	1.70	1.65
Points—												
For weight of Milk (lbs.)	36.75			24.15			29.85			56.05		
For weight of Fat (lbs. × 20)	33.88			12.84			18.96			43.62		
For weight of Solids other than Fat (lbs. × 4)	13.72			10.00			11.32			20.48		
Total Points for Milk	84.35			46.99			60.13			120.15		
Deductions	—			30.0			10.0			10.0		
Total Points Gained for Milk	84.35			16.99			50.13			110.15		
Points for time since Calving	10.1			6.1			4.3			1.0		
TOTAL POINTS GAINED	**94.45**			**23.09**			**54.43**			**111.15**		
Points gained for Milk per 1,000 lbs. live weight	88.79			16.03			47.70			137.34		
Points for time since Calving	10.1			6.1			4.3			1.0		
Total Points per 1,000 lbs. live weight	98.89			22.13			52.00			138.34		
Remarks and Awards	2nd Prize.			Fat below standard.						1st Prize.		

CLASS 30.—DEXTER COW, ENTERED IN OR ACCEPTED FOR THE HERD BOOK. COWS ENTERED IN THIS CLASS MUST HAVE YIELDED A MINIMUM OF 5,000 LBS. AT FIVE YEARS OLD OR OVER, OR 3,750 LBS. AT UNDER FIVE YEARS OLD, EITHER DURING A LACTATION PERIOD OF 45 WEEKS OR FOR ANY ONE COMPLETED YEAR OF A RECOGNISED MILK RECORDING SOCIETY.

Number Name	389 Grinstead Nightingale 3rd.			391 Grinstead Dollie 2nd.			392 The Witch.			393 Lyndsays Minette.		
Born	Dec. 19, 1925.			May 18, 1929.			Jan. 25, 1927.			July 1, 1932.		
Live weight, in lbs.	686			700			814			578		
Last Calved	Apr. 29.			Aug. 26.			May 15.			Sept. 19.		
Days since Calving	173			54			157			30		
	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.	Morn.	Aft.	Even.
Weight of Milk, 1st day	12.5	12.9	12.4	16.2	13.6	15.0	9.5	8.7	7.9	9.5	9.9	9.9
Weight of Milk, 2nd day	12.7	12.2	11.3	16.0	14.2	15.1	8.7	8.6	8.5	9.8	9.8	9.8
Total	25.2	25.1	23.7	32.2	27.8	30.1	18.2	17.3	16.4	19.3	19.7	19.7
Average	12.6	12.55	11.85	16.1	13.9	15.05	9.1	8.65	8.2	9.65	9.85	9.85
Percentage Composition of the Milk. Fat	4.92	5.19	4.35	3.38	3.10	3.51	5.60	5.68	4.33	5.43	4.79	4.46
Percentage Composition of the Milk. Solids other than Fat	9.14	9.19	8.95	9.24	9.34	9.31	9.20	9.24	9.45	9.37	9.59	9.58
Percentage Composition of the Milk. Total Solids	14.06	14.38	13.30	12.62	12.44	12.82	14.80	14.92	13.78	14.80	14.38	14.04
Actual weight of Fat, in lbs.	0.620	0.651	0.515	0.544	0.431	0.528	0.510	0.491	0.355	0.524	0.472	0.439
Actual weight of Solids other than Fat, in lbs.	1.15	1.15	1.06	1.49	1.30	1.40	0.84	0.80	0.77	0.90	0.94	0.94
Points—												
For weight of Milk (lbs.)	37.00			45.05			25.95			29.35		
For weight of Fat (lbs. × 20)	35.72			30.06			27.12			28.70		
For weight of Solids other than Fat (lbs. × 4)	13.44			16.76			9.64			11.12		
Total Points for Milk	86.16			91.87			62.71			69.17		
Deductions	—			—			—			—		
TOTAL POINTS GAINED FOR MILK	86.16			91.87			62.71			69.17		
Points for time since Calving	12.0			1.4			11.7			—		
TOTAL POINTS GAINED	**98.16**			**93.27**			**74.41**			**69.17**		
Points gained for Milk per 1,000 lbs. live weight	125.60			131.24			77.04			119.67		
Points for time since Calving	12.0			1.4			11.7			—		
Total Points per 1,000 lbs. live weight	137.60			132.64			88.74			119.67		
Remarks and Awards	1st Prize.			2nd Prize.			3rd Prize.			Reserve.		

THE "ROBERT MOND" CHALLENGE SHIELD AWARDS

By J. Mackintosh, O.B.E., N.D.A., N.D.D.

This trophy was presented by Mr. Robert Mond to the British Dairy Farmers' Association in 1919, with the object of encouraging breeders of dairy stock to judge bulls more by the production of their daughters than by the appearance of the bulls themselves. .

At the same time a special prize of £10 was also presented by Mr. Mond for two cows or heifers, the progeny of one bull, exhibited at the Dairy Show and gaining the largest number of points above the standard of the classes in which they were exhibited. The entry of two animals for this special prize was taken as equivalent to an entry for the Challenge Shield, but in order to qualify for the latter the two daughters exhibited at the Dairy Show and two additional daughters must have given at least 5,500 lbs. milk containing not less than 3.5 per cent. fat in their first lactation period, or at least 6,500 lbs. milk containing not less than 3.5 per cent. fat in their second or later lactation periods, each lactation period not to exceed 365 days and each competing animal to be in calf within five months of the commencement of the lactation period. The Challenge Shield is then awarded to the group of four daughters complying with these conditions and producing the highest yield of butter-fat.

The special prize of £10 has been won at practically all the Dairy Shows since 1920, but the Challenge Shield has been won on only seven occasions. It is probable that entries were restricted for a few years by the fact that the Prize and Shield were open only to Dairy Shorthorns, but since 1922 these trophies have been open to all breeds, and in some respects the qualifying conditions have been made less stringent. Full details are published each year in the schedule of prizes issued before the Show and in the catalogues issued at the Show.

Details are given below of the winning entries in 1925-26, 1928-29, 1930-31, 1931-32, 1932-33, 1933-34 and 1934-35.

The winner in 1925-26 was Major C. R. Dudgeon, Cargen Holm, Dumfries, with the progeny of the Ayrshire bull "Thornhill Mount Royal" (19147). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Cargen Holm Proud Lady 10th	10,193	4.11	415.2
Cargen Holm Sally 6th ...	11,693	3.83	447.8
Cargen Holm Proud Lady 8th	9,721	4.05	393.7
Cargen Holm Daisy Bell 2nd	8,566	4.23	362.3
	Total fat yield ...	...	1,619.0

The reserve in 1925-26 was Mr. E. A. Smith, Longhills, Lincoln, with the progeny of the Dairy Shorthorn bull, " Babraham Lord Price " (140574). The total yield of fat of the four daughters of this bull was 1,126.0 lb.

In 1928-29 the winner was Mr. Grosvenor Berry with the progeny of the Jersey bull, " Nimrod " (14890). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Post Girl 2nd	7,542½	4.17	314.52
Nimrod's Primrose	5,786	5.76	333.27
Water Dinah	9,117¼	3.64	331.87
Nimrod's Taranto 2nd ...	8,285¼	3.86	319.81
	Total fat yield ...	...	1,299.47

The winner in 1930-31 was Mr. G. Wills, Rydon, Ogwell, Newton Abbot, with the progeny of the South Devon bull, " Flete Forester 7th " (11444). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Primula 5th (33706)	8,508½	3.99	339.19
Milkmaid (33702)	7,938½	4.54	360.41
Snowdrop 6th (33707) ...	7,871½	4.11	323.52
Pink 12th (33703)	6,163¼	4.19	258.24
	Total fat yield ...	...	1,281.66

The reserve in 1930-31 was Mr. A. Weightman, Middle Herrington, Sunderland, with the progeny of the British Friesian bull, "Wychnor Jan" (P.I.) (24645). The total yield of fat of the four daughters of this bull was 1,086.64 lbs.

In 1931-32 four entries were received but only in one of these were all the conditions complied with. The winner was Mr. J. Cochrane, Byreholm, Thornhill, Dumfries-shire, with the progeny of the Ayrshire bull, "Netherton Prosperity" (26488). The yields of the four daughters of this bull were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Byreholm Jubilee 2nd (23744)	11,640	4.40	512.16
Byreholm Julia 2nd (23747)	9,410	3.72	350.05
Byreholm Jujube (23746) ...	8,760	4.25	372.30
Byreholm Juno (23749) ...	5,630	4.45	250.53
	Total fat yield ...	...	1,485.04

In 1932-33 there were seven entries, but unfortunately six of these failed to comply fully with the conditions, owing to delayed calvings or other occurrences.

The winner was found to be Mr. G. Wills, Rydon, Ogwell, Newton Abbot, with the progeny of the South Devon bull, "Flete Forester 7th" (11444). Mr. Wills had also won the Shield in 1930-31, with a group of progeny by the same bull. The yields of the four daughters were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Starlight 11th (34377) ...	8,999	4.21	378.86
Pink 12th (33703)	6,519¾	3.97	252.32
Lavender 3rd (34372) ...	6,631½	4.27	283.16
Snowdrop 6th (33707) ...	9,250½	4.45	411.65
	Total fat yield ...	...	1,325.99

In 1933-34 there were again seven entries :—two from Dairy Shorthorn herds, two from British Friesian herds, two from South Devon herds and one from a Guernsey herd. Unfortunately, through a variety of causes such as failure of the animals sent to the Dairy Show to attain the class standard in points, failure to calve again within 425 days or sale of an animal, six out of the seven entries failed to comply with the conditions of the competition. The remaining entrant, Mr. George Wills, Rydon, Ogwell, Newton Abbot complied with all the conditions and therefore holds the Shield for the current year.

The sire of the four animals is the South Devon bull, Wychbrook Champion (10995). Mr. Wills was the winner in 1932-33 and also in 1930-31 with another bull, "Flete Forester 7th" (11444) and deserves congratulations on his continued success.

The yields of the four daughters in 1932-33 were as follows :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Hawthorn 8th (14069) ...	7,741¼	4.35	336.74
Hawthorn 9th (15073) ...	8,096¼	3.94	318.99
Starlight 14th (15116) ...	9,575¼	4.32	413.65
Milkmaid 3rd (14072) ...	6,509	4.44	288.99
	Total fat yield ...	...	1,358.37

In 1934-35 there were eight entries and five breeds were represented, namely :—Dairy Shorthorns, 3 ; Ayrshires, 2 ; Red Polls, 1 ; Jerseys, 1 ; South Devons, 1.

For various reasons four of the entries failed to comply with the conditions but the remaining four produced results which are worthy of close attention. The winner of the Shield is Mr. Gordon McWilliam, Dunwood Manor, Romsey, Hants., with the bull "Warrior's Cid You'll Do" (15462). The records of the four daughters of this bull are shown below and the total weight of butter fat produced by the four daughters constitutes a record for this Competition, a total of 2,397.55 lb., showing a marked advance on the previous highest total—1,619 lb. earned in 1925-26 by an Ayrshire breeder. The yields of the four daughters of Mr. Gordon McWilliam's bull are :—

Daughters.	Milk Yield.	Fat Percentage.	Fat Yield.
	lb.	%	lb.
Bollhayes May's Sunrise (12170)	18,006½	4.18	752.67
Bollhayes Jolly Bart (12164)...	13,486	4.53	610.92
Bollhayes Princess Mary (12177)	12,200	4.87	594.14
Bollhayes Parlourmaid (12173)	9,928¼	4.43	439.82
	Total fat yield ...	...	2,397.55

The reserve is Mr. J. Cochrane, Byreholm, Penpont, Dumfries, with the progeny of the bull "Halldykes Willy" (29848). The total fat yield of the progeny of this bull was 1,656.18 lb. which also exceeds the previous record yield.

The competition for the Shield for 1934-35 was much keener than in previous years and the general standard of performance was notably higher. An increase in the number of entries may confidently be looked for in succeeding years.

THE MILKING TRIALS FOR GOATS, 1936

By Thos. W. Palmer.

Classification was similar to that of the previous year. Entries at 28 showed an increase of 1 but absentees accounted for 9 (three owing to Foot and Mouth Disease Regulations), so that 19 goats competed as against 18 last year.

A new record for the Dairy Show was created by Miss Harrison's Hartye of Weald **** which gave a yield of 16.35 lbs., the previous highest yield being 16 lbs. at the 1932 Dairy Show by Mrs. Abbey's Didgemere Doggerel *Q*Q*Q***Q*.

Class 40. *She Goats, First Kidders.*—Thirteen entries, four absent (1935, nine entries, four absent). First, Miss Harrison's " Humble of Weald " ***Q* with a yield of 13.50 lbs. after being in milk 204 days, butter fat 4.35% and 5.13%, total points 32.79, also Reserve for the Baroness Burdett Coutts Cup and the Chamberlain Trophy. Second, Miss Barnaby's " Bitterne Favourite " *Q*, yield 11.65 lbs. after a lactation of 122 days, butter fat 4.53% and 4.60%, total points 27.40. Third, G. E. Walsh's " Ripton Sybil " Q*Q*, yield 8.15 lbs., butter fat 7.82% and 7.43%, total points 25.67. This goat was awarded the Saanen Cup. A fourth prize was offered by the British Goat Society and this was awarded to Mrs. Perry's " Buckwyns Georgina " Q*, yield 8.80 lbs., butter fat 5.92% and 6.17%, total points 23.52. She was Reserve for the Saanen Cup. The Reserve Number was Miss Madoc's " Melverley Myvita " *Q*Q*, yield 9.80 lbs., points 23.30. The same competitor's " Melverley Merrilees " *Q*Q*Q*Q*Q*Q*, and Mrs. Morcom's " Cornish Pitch " Q*Q* obtained High Commendations with 22.34 and 22.56 points respectively. Competition was fairly keen and only one goat secured less than 20 points.

Class 41. *She Goats not eligible for Class* 40.—Fifteen entries, five absent (1935, sixteen entries, eight absent). Miss Harrison's " Hartye of Weald " **** was first, yield 16.35 lbs., after a lactation of 229 days, butter fat 3.94% and 4.13%, total points 37.02. This animal was also awarded the following special prizes :—The Holmes Pegler Jubilee Trophy, the Dual Purpose Challenge Certificate, the Baroness Burdett Coutts Cup, the Tremedda Selene Cup, the Dewar Cup (with her stable companion Lydo of Weald), the Dewar Trophy and the Chamberlain Trophy. The same owner's " Hindrance of Weald " **** was second with a yield of 14.95 lbs., after being in milk for 213 days, butter fat 3.78% and 3.85%, total points 33.15.

She was Reserve for the Holmes Pegler Trophy, the Tremedda Selene Cup and the Dewar Trophy. The third prize was awarded to Mrs. Morcom's "Cornish Praline" Q*Q*Q*Q*Q*, yield 12.70 lbs., after being in milk 231 days, butter fat 4.07% and 4.95%, total points 30.80. A fourth prize given by the British Goat Society was awarded to Miss Pope's "Wiremill Peach" Q*, who after a lactation of 154 days gave 12.45 lbs., butter fat 4.81% and 4.31%, total points 29.76. The Reserve Number was the same owner's "Heddon Slipper" *Q*Q*, yield 11.90 lbs. butter fat 4.11% and 4.69%, total points 28.90. High Commendations were awarded to Mrs. Morcom's "Cornish Playful" **Q**Q* and "Cornish Saccharine" Q*Q*Q*Q* with 27.68 and 26.02 points respectively, Miss Pelly's "Theydon Judy" Q*Q*Q* 26.02 points, and G. E. Walsh's "Didgemere Siren" Q* 22.97 points. Only one goat failed to obtain 20 points in this Class. Just over seven points covered the first four goats.

Six goats which competed at the 1935 Show were again at the Agricultural Hall; five were successful in obtaining awards, two prizes and three High Commendations.

Class 42. *She Goats, Toggenburg.* Four entered for Inspection, one for Milking; this was Miss Sheppard's "Widdington Willenda" *Q* whose yield was 5.85 lbs., after being in milk for 509 days, butter fat 3.91% and 5.53%, total points 17.05. She was awarded the Straker Cup for the Toggenburg goat obtaining the highest number of points in the Milking Competition, repeating her success at the 1935 Show.

Class 43. *She Goats, British Alpine.*—Seven entered for Inspection, four for Milking, one absentee. No goat qualified for a prize. Mrs. Morcom's "Cornish Pitch" Q*Q* whose yield was 7 lbs., total points 22.56, and Miss Madoc's "Melverley Merrilees" *Q*Q*Q*Q*Q*Q*, yield 7.10 lbs., total points 22.34 obtained High Commendations. The former was awarded the Abbey Cup for the British Alpine goat obtaining the highest number of points in the Milking Competition, with the latter goat as Reserve.

Class 44. *She Goats, Saanen.*—Six entered for Inspection, four for Milking, two absent. Both competitors were in the First Kidders' Class. Mr. Walsh's "Ripton Sybil" Q*Q* was awarded 3rd prize and the Saanen Cup, yield 8.15 lbs., butter fat 7.82% and 7.43%, total points 25.67, while Mrs. Perry's "Buckwyns Georgina" Q* won 4th prize and was Reserve for the Saanen Cup with a yield of 8.80 lbs., butter fat 5.92% and 6.17%, total points 23.52.

Class 45. *She Goats, British Saanen.*—Eleven entries, all competing in the Milking Classes but five were absent. In the

First Kidders' Class, Miss Harrison's "Humble of Weald" ***Q* was first, yield 13.50 lbs., butter fat 4.35% and 5.13%, total points 32.79. Miss Madoc's "Melverley Myvita" *Q*Q* was Reserve, yield 9.80 lbs., total points 23.30. In the other Class, Miss Harrison won 1st and 2nd with her two competitors "Hartye of Weald" **** and "Hindrance of Weald" ****. The former gave 16.35 lbs., butter fat 3.94% and 4.13%, total points 37.02, and the latter 14.95 lbs., butter fat 3.78% and 3.85%, total points 33.15. Comment has already been made on the Trophies and Cups won by these goats. Miss Pope's "Heddon Slipper" *Q*Q* was Reserve, yield 11.90 lbs., total points 28.90.

Class 46. *She Goats, Anglo-Nubian.*—Six entries for Inspection, two for Milking, one absentee. Miss Pelly's "Theydon Judy" Q*Q*Q* gained a High Commendation in Class 41 with a yield of 10.10 lbs., total points 26.02 and was awarded the Pomeroy Cup for the Anglo-Nubian goat obtaining the highest number of points in the Milking Competition.

Class 47. *She Goats, British Toggenburg.*—Four entries for Inspection, two for Milking. Mrs. Morcom's "Cornish Praline" Q*Q*Q*Q*Q* won 3rd prize in Class 41, yield 12.70 lbs., butter fat 4.07% and 4.95%, total points 30.80, while Miss Pope's "Wiremill Peach" Q* obtained fourth prize in the same class, yield 12.45 lbs., butter fat 4.81% and 4.31%, total points 29.76.

Class 48. *She Goats, Any Other Variety.*—Five entries for Inspection, four for Milking, one absentee. Miss Barnaby's "Bitterne Favourite" *Q* won 2nd prize in the First Kidders' Class milk 11.65 lbs., butter fat 4.53% and 4.60%, total points 27.40. The other two goats competed in Class 41, both were exhibited by Mrs. Morcom and received High Commendations, "Cornish Playful" **Q**Q* and "Cornish Saccharine" Q*Q*Q*Q* with 27.68 and 26.02 points respectively.

No goat was disqualified for deficiency in butter fat.

Tabulated Statements follow :—

TABLE I.

Class.	Description.	Number in Class.		Average Live Weight.	Average Yield of Milk.	Highest Yield.	Lowest Yield.	Average period of Lactation.	Average Fat.	Average Solid not Fat.	Number of Animals below Standard for Fat.		Average points Gained.
		Entered.	Competing.										
				lbs.	lbs.	lbs.	lbs.	days.			a.m.	p.m.	
42	Toggenburg	1	1	165	5.85	5.85	5.85	509	4.72	8.88	—	—	17.05
43	British Alpine	4	3	199	7.21	7.55	7.00	397	6.24	9.13	—	—	21.67
44	Saanen	4	3	147	8.26	8.80	7.85	179	6.74	8.88	—	—	24.05
45	British Saanen	11	6	170	12.17	16.35	6.55	208	4.44	8.44	—	—	28.84
46	Anglo-Nubian	2	1	186	10.10	10.10	10.10	90	5.59	9.26	—	—	26.02
47	British Toggenburg	2	2	157	12.57	12.70	12.45	192	4.53	8.80	—	—	30.28
48	Any Other Variety	4	3	157	10.61	11.65	9.30	191	5.18	8.51	—	—	27.03

Description of Class.	Year of Show.	Number of Animals Competing.	Average live weight of each Animal.	Average period of Lactation.	Average weight of Milk.		Average weight of Milk per day.	Highest Yield.	Lowest Yield.	Percentages.			
										Fat.		Solids.	
			lbs.	days.	a.m.	p.m.				a.m.	p.m.	a.m.	p.m.
Other than First Kidders	1929	10	169	219	4.64	4.53	9.17	11.65	6.45	4.36	4.66	8.70	8.63
,, ,, ...	1930	9	178	197	4.62	4.45	9.07	12.70	6.35	4.64	4.63	8.75	8.51
,, ,, ...	1931	14	158	194	4.20	3.97	8.17	14.30	3.90	4.97	4.91	8.36	8.60
,, ,, ...	1932	12	181	249	5.67	5.32	10.99	16.00	7.00	3.96	4.11	8.50	8.47
,, ,, ...	1933	14	182	268	5.18	5.04	10.22	14.10	6.95	4.57	4.36	8.27	8.73
,, ,, ...	1934	8	172	236	5.58	5.24	10.83	13.65	9.10	4.00	4.47	8.47	8.41
,, ,, ...	1935	8	191	260	5.77	5.45	11.22	15.20	8.60	4.31	4.43	8.60	9.04
,, ,, ...	1936	10	162	233	5.74	5.50	11.24	16.35	5.85	4.76	5.07	8.54	8.75
First Kidders	1929	13	157	199	4.62	4.30	8.92	14.70	5.45	4.26	4.67	8.82	8.84
,, ,, ...	1930	6	164	196	4.65	4.35	9.00	11.60	8.25	4.45	4.43	8.53	8.43
,, ,, ...	1931	14	163	200	4.28	4.06	8.34	14.45	5.70	4.43	4.73	8.30	8.58
,, ,, ...	1932	13	171	243	4.64	4.28	8.92	11.70	4.10	3.82	4.31	9.04	8.68
,, ,, ...	1933	8	157	208	5.12	4.80	9.92	12.05	7.15	4.20	3.88	8.17	8.66
,, ,, ...	1934	5	170	257	4.63	4.46	9.09	11.30	7.20	4.75	5.55	8.76	8.86
,, ,, ...	1935	10	173	216	4.96	4.81	9.77	12.25	7.25	4.37	4.42	8.78	9.14
,, ,, ...	1936	9	175	246	4.52	4.38	8.90	13.50	6.55	5.68	5.73	8.75	8.91

CLASS 40.—SHE GOATS (FIRST KIDDERS).

Number Name	398 Cornish Pitch.		400 Melverley Merrilees.		401 Melverley Mistake.		407 Buckwyns Georgina.		409 Ripton Sybil.	
Born	Feb. 18, 1933.		Feb. 21, 1933.		Mar. 7, 1934.		Mar. 21, 1934.		Apr. 9, 1934.	
Live weight, in lbs.	159		199		239		135		156	
Last Kidded	Mar. 27, 1935.		June 15, 1935.		June 9.		July 1.		Mar. 19.	
Days since Kidding	571		491		131		109		213	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	3.6	3.5	3.6	3.5	4.0	3.7	4.4	4.3	4.1	4.1
Weight of Milk, 2nd day	3.5	3.4	3.6	3.5	3.8	3.6	4.4	4.5	4.0	4.1
Total	7.1	6.9	7.2	7.0	7.8	7.3	8.8	8.8	8.1	8.2
Average	3.55	3.45	3.6	3.5	3.9	3.65	4.4	4.4	4.05	4.1
Percentage Composition of the Milk. Fat	6.20	7.26	6.23	6.58	5.84	5.34	5.92	6.17	7.82	7.43
Percentage Composition of the Milk. Solids other than Fat	9.02	9.24	8.91	9.14	9.22	9.28	8.72	8.89	9.10	9.15
Percentage Composition of the Milk. Total Solids	15.22	16.50	15.14	15.72	15.06	14.62	14.64	15.06	16.92	16.58
Actual weight of Fat, in lbs.	0.220	0.250	0.224	0.230	0.228	0.195	0.260	0.271	0.317	0.305
Actual weight of Solids other than Fat, in lbs.	0.320	0.319	0.321	3.20	0.360	0.339	0.384	0.391	0.369	0.375
Points— For weight of Milk (lbs.)	7.00		7.10		7.55		8.155		8.15	
For weight of Fat (lbs. × 20)	9.40		9.08		8.46		10.62		12.44	
For weight of Solids other than Fat (lbs. × 4)	2.56		2.56		2.80		3.10		2.98	
Total Points for Milk	18.96		18.74		18.81		22.52		23.57	
Deductions	—		—		—		—		—	
TOTAL POINTS GAINED FOR MILK	18.96		18.74		18.81		22.52		23.57	
Points for time since Kidding	3.6		3.6		1.3		1.0		2.1	
TOTAL POINTS GAINED	**22.56**		**22.34**		**20.11**		**23.52**		**25.67**	
Remarks and Awards	Highly Commended.		Highly Commended.				4th Prize.		3rd Prize.	

CLASS 40.—SHE GOATS (FIRST KIDDERS)—*Continued.*

Number	411		414		415		432	
Name	Cornish Urchinette.		Melverley Myvita.		Humble of Weald.		Bitterne Favourite.	
Born	Mar. 18, 1934.		Jan. 12, 1934.		May 26, 1934.		Apr. 3, 1934.	
Live weight, in lbs.	160		213		157		158	
Last Kidded	Apr. 10.		Apr. 19.		Mar. 28.		June 18.	
Days since Kidding	191		182		204		122	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	3.2	3.1	4.9	4.4	7.1	6.3	6.2	5.9
Weight of Milk, 2nd day	3.3	3.5	5.2	5.1	6.8	6.8	5.7	5.5
Total	6.5	6.6	10.1	9.5	13.9	13.1	11.9	11.4
Average	3.25	3.3	5.05	4.75	6.95	6.55	5.95	5.7
Percentage Composition of the Milk. Fat	5.73	5.03	4.51	4.11	4.35	5.13	4.53	4.60
Percentage Composition of the Milk. Solids other than Fat	8.93	9.29	8.27	8.27	8.19	8.59	8.39	8.40
Percentage Composition of the Milk. Total Solids	14.66	14.32	12.78	12.38	12.54	13.72	12.92	13.00
Actual weight of Fat, in lbs.	0.186	0.166	0.228	0.195	0.302	0.336	0.270	0.262
Actual weight of Solids other than Fat, in lbs. ...	0.290	0.307	0.418	0.393	0.569	0.563	0.499	0.479
Points—								
For weight of Milk (lbs.)	6.55		9.80		13.5		11.65	
For weight of Fat (lbs. × 20)	7.04		8.46		12.76		10.64	
For weight of Solids other than Fat (lbs. × 4) ...	2.39		3.24		4.53		3.91	
Total Points for Milk	15.98		21.50		30.79		26.20	
Deductions	—		—		—		—	
TOTAL POINTS GAINED FOR MILK	15.98		21.50		30.79		26.20	
Points for time since Kidding ...	1.9		1.8		2.0		1.2	
TOTAL POINTS GAINED ...	**17.88**		**23.30**		**32.79**		**27.40**	
Remarks and Awards			Reserve.		First Prize.		Second Prize.	

Class 41.—SHE GOATS (not eligible for Class 40).

Number	395		408		416		418		419	
Name	Widdington Willenda.		Didgemere Siren.		Hartye of Weald.		Hindrance of Weald.		Heddon Slipper.	
Born	June 19, 1932.		Feb. 6, 1931.		Apr. 30, 1933.		May 10, 1933.		Apr. 13, 1930.	
Live weight, in lbs.	165		152		180		147		167	
Last Kidded	May 28, 1935.		Mar. 16.		Mar. 3		Mar. 19.		Feb. 27.	
Days since Kidding	509		216		229		213		234	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	2.9	3.1	4.4	4.0	8.3	7.9	7.7	7.5	6.3	5.7
Weight of Milk, 2nd day	2.9	2.8	3.9	3.4	8.3	8.2	7.4	7.3	5.9	5.9
Total	5.8	5.9	8.3	7.4	16.6	16.1	15.1	14.8	12.2	11.6
Average	2.9	2.95	4.15	3.7	8.3	8.05	7.55	7.4	6.1	5.8
Percentage Composition of the Milk. Fat	3.91	5.53	6.71	6.39	3.94	4.13	3.78	3.85	4.11	4.69
Solids other than Fat	8.79	8.97	8.63	8.81	8.16	8.01	7.74	7.99	8.75	9.09
Total Solids	12.70	14.50	15.34	15.20	12.10	12.14	11.52	11.84	12.86	13.78
Actual weight of Fat, in lbs.	0.113	0.163	0.278	0.236	0.327	0.332	0.285	0.285	0.251	0.272
Actual weight of Solids other than Fat, in lbs. ...	0.255	0.265	0.358	0.326	0.677	0.645	0.584	0.591	0.534	0.527
Points—										
For weight of Milk (lbs.)	5.85		7.85		16.35		14.95		11.9	
For weight of Fat (lbs. × 20)	5.52		10.28		13.18		11.40		10.46	
For weight of Solids other than Fat (lbs. × 4) ...	2.08		2.74		5.29		4.70		4.24	
Total Points for Milk	13.45		20.87		34.82		31.05		26.60	
Deductions	—		—		—		—		—	
TOTAL POINTS GAINED FOR MILK	13.45		20.87		34.82		31.05		26.60	
Points for time since Kidding ...	3.6		2.1		2.2		2.1		2.3	
TOTAL POINTS GAINED ...	**17.05**		**22.97**		**37.02**		**33.15**		**28.90**	
Remarks and Awards			Highly Commended.		First Prize.		Second Prize.		Reserve.	

Class 41.—SHE GOATS (not eligible for Class 40)—*Continued.*

Number	425		429		431		434		435	
Name	Theydon Judy.		Cornish Praline.		Wiremill Peach.		Cornish Saccharine.		Cornish Playful.	
Born	Mar. 16, 1933.		Feb. 27, 1933.		Feb. 26, 1933.		Feb. 22, 1931.		Feb. 21, 1933.	
Live weight, in lbs.	186		169		145		161		181	
Last Kidded	July 20.		Mar. 1.		May 17.		Jan. 29.		Apr. 11.	
Days since Kidding	90		231		154		263		190	
	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.	Morn.	Even.
Weight of Milk, 1st day	5.5	4.9	6.6	6.2	6.2	5.9	5.1	4.5	5.7	5.4
Weight of Milk, 2nd day	5.2	4.6	6.5	6.1	6.2	6.6	4.5	4.5	5.3	5.4
Total	10.7	9.5	13.1	12.3	12.4	12.5	9.6	9.0	11.0	10.8
Average	5.35	4.75	6.55	6.15	6.2	6.25	4.8	4.5	5.5	5.4
Percentage Composition of the Milk. Fat	5.43	5.75	4.07	4.95	4.81	4.31	5.77	5.89	5.07	5.26
Percentage Composition of the Milk. Solids other than Fat	9.09	9.43	8.43	8.85	8.97	8.97	8.73	8.91	8.13	8.50
Percentage Composition of the Milk. Total Solids	14.52	15.18	12.50	13.80	13.78	13.28	14.50	14.80	13.20	13.76
Actual weight of Fat, in lbs.	0.291	0.273	0.267	0.304	0.298	0.269	0.277	0.265	0.279	0.284
Actual weight of Solids other than Fat, in lbs.	0.486	0.448	0.552	0.544	0.556	0.561	0.419	0.401	0.447	0.459
Points—										
For weight of Milk (lbs.)	10.10		12.60		12.45		9.3		10.9	
For weight of Fat (lbs. × 20)	11.28		11.42		11.34		10.84		11.26	
For weight of Solids other than Fat (lbs. × 4)	3.74		4.38		4.47		3.28		3.62	
Total Points for Milk	25.12		28.50		28.26		23.42		25.78	
Deductions	—		—		—		—		—	
Total Points Gained for Milk	25.12		28.50		28.26		23.42		25.78	
Points for time since Kidding	0.90		2.3		1.5		2.6		1.9	
TOTAL POINTS GAINED	**26.02**		**30.80**		**29.76**		**26.02**		**27.68**	
Remarks and Awards	Highly Commended.		Third Prize.		Fourth Prize.		Highly Commended.		Highly Commended.	

The Dairy Show Butter Tests, 1936.

By R. H. Evans, B.Sc.

The conditions governing the award of prizes in the Butter Test classes at the 1936 London Dairy Show were similar to those obtaining at previous shows, except that the quality of the butter yielded by each individual animal was taken into consideration, for which an additional maximum of ten points were awarded.

The awards in the Butter Tests were in accordance with the following scale of points :—

One point for every ounce of butter ; one point for every completed ten days since calving (calculated to the first day of the Show), deducting the first forty days, and in addition, points not exceeding a maximum of ten for quality of butter, including colour and texture. Maximum allowance for period of lactation, 12 points. Fraction of ounces of butter, and incomplete periods of less than ten days, will be worked out in decimals, and added to the total points.

In the case of cows obtaining the same number of points the prize will be awarded to the cow that has been the longest time in milk. No prize or other award will be given to animals in the Butter Tests which do not come up to the following standard :—

Breed.	Heifers. Points.	Cows under 5 years. Points.	Cows 5 years and over. Points.
Pedigree Shorthorns	22.7	28.3	34
Non-pedigree Shorthorns	22.7	28.3	34
Lincoln Red Shorthorns	22.7	28.3	34
British Friesians	22.7	28.3	34
South Devons	22.7	28.3	34
Devons	20.0	25.0	30
Red Polls	22.7	28.3	34
Blue Albions...	22.7	28.3	34
Welsh	20.0	25.0	30
Ayrshires	22.7	28.3	34
Guernseys	20.0	25.0	30
Jerseys	23.3	29.2	35
Kerries	19.3	24.2	29
Dexters	19.3	24.2	29

A Certificate of Merit and Highly Commended Card will be given to animals, other than Prize Winners, that reach the above standard.

The following were the number of entries and the actual number tested at the 1936 Dairy Show :—

Breed.	No. entered.	No. tested.	No. diaqualified.
Pedigree Shorthorns	30	17	1
Non-pedigree Shorthorns	10	4	1 (Withdrawn)
Lincoln Reds	12	7	—
British Friesians	42	20	2
South Devons	16	12	—
Red Polls	30	19	—
Ayrshires	47	27	—
Guernseys	23	17	—
Jerseys	67	37	—
Welsh Blacks	6	2	—
Kerries	2	2	—
Dexters	5	4	—
	290	168	4

SHORTHORNS.

A.—Pedigree.

Eighteen Pedigree Shorthorns were tested—one of which was disqualified in accordance with the provisions of Rule 32 (m).

John Day's cow " Huxham Duchess Rose 7th " won the second prize in the Shorthorn classes. Her milk yield amounted to 71 lbs. from which 2.34 lbs. butter was obtained. This cow had been 152 days in milk—thus obtaining 11.2 points for lactation. This cow was also awarded the Melvin Cup and the £25 Shorthorn Prize.

C. J. Allday's cow " Fothering Foggathorpe 2nd," with a milk yield of 67.1 lbs. and a butter yield of 2.85 lbs. was third in her class. This animal was also awarded the Shorthorn Butter Cup.

The fourth prize was awarded to J. J. McMenemy's cow " Parkhouse Strawberry 16th," her milk and butter yields being 78.6 and 2.81 lbs. respectively, and 1.4 points for lactation.

The reserve among the Shorthorns was J. P. Morgan's "Aldenham Kirklevington Lady 6th."

B.—Non-Pedigree.

Only four cows were tested, one of which was disqualified. The other three reached the standard points for the breed.

C.—Lincoln Reds.

Seven cows were tested, and it was in this class that the 1st prize winner was found—a cow known as " Histon Acacia 5th,"—the property of Chivers and Sons, Ltd. She yielded 75.1 lbs. milk, from which 4.56 lbs. butter was churned—a wonderful performance, though not constituting a record yield at the London Dairy Show. This animal also won the B.D.F.A. Supreme Championship and the Spencer Cup.

The fifth prize in the Shorthorn classes was awarded to J. Evens and Son's "Burton Red Rose 10th," her milk and butter yields being 50.6 lbs. and 1.98 lbs. respectively, with an additional 11.5 points for lactation.

BRITISH FRIESIANS.

Twenty-two animals were tested—two of which were disqualified.

C. Ball's cow "Oakham Dolce" won the premier honours in this breed. The cow yielded 72.6 lbs. milk from which 3.51 lbs. excellent butter was made. She gained the maximum ten points for quality.

The second prize in this class went to Lord Rayleigh's Farms' cow "Terling Contented 26th." Her milk yield amounted to 83.7 lbs. from which 2.98 lbs. butter were obtained. This animal was the Reserve for the B.D.F.A. Supreme Championship.

The third prize was awarded to H. C. Alexander's cow "Kenton Blossom" with milk and butter yields of 78 lbs. and 3 lbs. respectively.

The fourth prize was C. Ball's "Oakham Dainty." This famous animal yielded 72.8 lbs. milk and 2.5 lbs. butter.

The fifth place was held by W. Twentyman's cow "Winchester Danae," with milk and butter yields of 69.7 lbs. and 2.95 lbs. respectively.

SOUTH DEVONS.

Twelve South Devons were tested, the premier prize going to G. Wills' "Milkmaid 3rd." Her milk and butter yields amounted to 71.9 lbs. and 3.85 lbs. respectively.

Dartington Hall, Ltd.'s "Dartington Dairymaid" was awarded the second prize, her performance being 70.9 lbs. milk from which 3.83 butter was churned.

The third award went to W. Hunt's "Tracey's Milkmaid 5th." This cow yielded 85.8 lbs. milk from which 3.6 lbs. butter was obtained. This animal was also awarded the South Devon Herd Book Cup.

G. Wills' cow "Rydon Milkmaid 7th" occupied the fourth position, her milk and butter yields being 58.9 lbs. and 3.58 lbs. respectively.

The butter ratios of both G. Wills' cows were 1 : 18.68 and 1 ; 16.45 respectively—an excellent performance.

RED POLLS.

Nineteen Red Poll animals competed. The premier place was held by the Earl of Radnor's "Longford Loafer," with milk and butter yields of 65.7 lbs. and 2.63 lbs. respectively. This animal was also awarded the Thornton Cup.

The second prize was won by "Grundisburgh Wander Duck," a cow from the herd of Lord Cranworth, M.C. Her milk yield amounted to 62.4 lbs. from which 2.69 lbs. butter was obtained.

Miss M. H. Bouverie's cow "Ranksborough Rosie" was awarded the third place with milk and butter yields of 70.5 lbs. and 2.6 lbs. respectively.

The fourth prize was awarded to the Earl of Radnor's cow "Longford Ruby 7th." This animal yielded 61.1 lbs. of milk from which 2.47 lbs. butter was obtained.

S. Paul's cow "Kirton Sundial" held the fifth place with milk and butter yields of 82.7 lbs. and 2.31 lbs. respectively.

AYRSHIRES.

An excellent class of 27 Ayrshires was tested.

The premier award was won by J. Turner's "Loaninghead Lady Emblem." Her milk yield amounted to 59.2 lbs., from which 3.31 lbs. butter was churned, which gives a butter ratio of 1 : 17.89, —an excellent performance.

The second prize was secured by J. Baird's "Birnieknowe Adelaide," with milk and butter yields of 76.9 lbs. and 3.21 lbs. respectively.

M. Hastings' cow "North Boig Bonnie Betty" was awarded the third prize, her milk and butter yields being 72.1 lbs. and 3.18 lbs. respectively. This cow was awarded the Rowallan Cup.

The fourth honour went to J. Turner's "Loaninghead Pansy 2nd," with yields of 68.2 lbs. milk and 3 lbs. butter.

A. Barclay's cow "Compton Rosetta" occupied the fifth position, with a yield of 75.2 lbs. milk from which 2.85 lbs. butter was obtained.

GUERNSEYS.

Of the 17 Guernseys tested, the Hon. A. E. Guinness' "Bella's Cora 4th of Les Jetteries," was awarded the premier place with milk and butter yields of 67.8 lbs. and 3.53 lbs. respectively. This cow was awarded the Stagenhoe Cup.

The second prize went to C. Holmes' cow "Dairy Queen 3rd of Clover Top," which yielded 43.6 lbs. milk from which 2.26 lbs. butter was churned. The cow had been 259 days in milk.

C. Holmes' "Rosey of Goodnestone 62nd" occupied the third place, with yields of 54.6 lbs. milk and 2.65 lbs. butter. This cow had been 94 days in milk.

The fourth prize went to Capt. H. J. Pilbrow's cow "Valence Lavender 2nd," with milk and butter yields of 51.7 lbs. and 2.07 lbs. respectively.

H. H. Scott's "Rose of Goodnestone 15th" gained the fifth prize. Her milk yield amounted to 33.7 lbs., from which 1.72 lbs. butter was obtained. This animal had been 193 days in milk.

JERSEYS.

Thirty-seven Jerseys were tested—probably a record number of cows of one breed tested at any London Show since 1922.

S. S. Lockwood's "Normanby Chloe" obtained the premier place. This animal yielded 50.9 lbs. milk from which 2.70 lbs. butter was obtained. The cow had been 179 days in milk.

The second prize was awarded to Mrs. G. J. Caddey's cow "Cambraie Elfa 2nd" which yielded 40.5 lbs. milk and 2.82 lbs. butter. This animal had been 136 days in milk.

Sir John B. Lloyd's cow "Dreaming Fleckie Lass" obtained the third position. Her milk yield was 59.9 lbs., from which 3.19 lbs. butter was obtained.

The fourth prize was awarded to Mrs. H. Hawkins' "Empire Mary" with milk and butter yields of 54.6 lbs. and 3.15 lbs. respectively. This animal was awarded the National Butter Cup.

J. W. McCallum's cow "Pearcelands Eileen 10th" won the fifth award with a milk yield of 49.1 lbs. from which 2.42 lbs. butter was churned. This animal had been 204 days in milk. The Blythwood Production Bowl was awarded to this animal.

WELSH BLACKS.

Two competed. The Hon. Lady Shelley-Rolls' cow "Grace" was awarded the £3 prize.

This cow yielded 70.4 lbs. milk from which 2.57 lbs. butter was obtained.

The prize of £2 was awarded to "Snowdon Fuchsia" from the herd of the University College of North Wales. Her yield of milk amounted to 44.5 lbs., and her butter yield 1.72 lbs.

KERRY.

Only two cows competed. The prize of £3 was awarded to Miss H. G. B. Bowen-Colthurst's cow "Summerhill Tricia 2nd." This animal yielded 56.4 lbs. milk from which 1.94 lbs. butter was obtained.

DEXTERS.

Four cows competed. A prize of £3 was awarded to Lady Loder's cow "Grinstead Nightingale 3rd," with milk and butter yields respectively of 37.8 lbs. and 1.62 lbs.

TROPHIES AND CUPS IN THE AWARDING OF WHICH BUTTER TEST POINTS ARE TAKEN INTO CONSIDERATION.

	Winner No.	Reserve No.
The B.D.F.A. Supreme Championship	77	101
Morrison Trophy	156	295
Spencer Cup	77	153
National Butter Cup	346	321
Melvin Cup	21	20
Shorthorn Butter Cup	20	21
South Devon Herd Book Cup ...	153	156
Busk Cup (Devons)	Not awarded.	
Thornton Cup (Red Polls)	184	192
Rowallan Cup (Ayrshires)	217	234
Stagenhoe Cup (Guernseys)	297	295
Blythwood Production Bowl (Jerseys)	324	322
Jersey Production Bowl	306	312
Loxwood Jubilee Cup (Jerseys) ...	306	346
Loder Cup (Dexters)	389	391
£25 Shorthorn Prize	21	60

The following table gives the average results for all breeds competing since 1920 :—

Year.	Total No. of Cows.	Average weight 24 hours' Milk.	Average Yield of Butter.		Average Butter Ratio.	Average No. of Points.
		lbs.	lbs.	ozs.		
1920...	111	39	1	9¼	24.21	28.25
1921...	173	39¾	1	6⅛	25.35	27.68
1922...	187	42½	1	8¼	27.99	26.31
1923...	143	41¾	1	11½	24.03	32.23
1924...	148	43½	1	12½	24.21	32.55
1925...	154	46¼	1	13½	25.59	32.61
1926...	149	49½	1	15½	26.69	34.68
1928...	133	49¼	1	14¼	27.00	33.93
1929...	130	52½	1	13½	28.69	32.48
1930...	147	50½	1	13¾	28.47	30.12
1931...	140	57¼	2	0	28.74	34.43
1932...	159	56¼	1	15¾	29.40	32.93
1933...	138	51.8	1.91		27.15	32.91
1934...	165	55.5	2.0		27.78	34.58
1935...	165	55.8	2.191		25.6	34.94
1936...	172	57.2	2.17		26.37	*44.89

* Including extra 10 points for quality.

The average weight of animals entered for the 1936 Butter Tests were :—

	lbs.		lbs.		lbs.		lbs.
P. Shorthorns	1,374	British Friesians	1,395	Ayrshires ...	1,105	Welsh Blacks	1,226
N.P. Shorthorns	1,292	South Devons ...	1,544	Guernseys	1,072	Kerries ...	931
Lincoln Reds	1,368	Red Polls ...	1,203	Jerseys ...	875	Dexters ...	695

The average weight of all animals competing was 1,165 lbs.

TABLE I.—NUMBER OF CATTLE TESTED SINCE 1901.

Breed.	1901 to 1912	1913	1914	1915	1919	1920	1921	1922	1923	1924	1925	1926	1928	1929	1930	1931	1932	1933	1934	1935	1936
Shorthorns	266	26	20	20	24	30	63	30	34	18	15	23	20	27	21	26	24	18	22	22	21
Lincoln Reds	44	5	4	2	4	4	7	7	9	8	10	4	4	4	8	8	5	4	3	10	7
British Friesians	—	—	1	2	2	15	10	24	13	23	19	25	19	16	19	16	30	19	16	19	20
South Devons	29	2	6	3	—	—	5	5	3	—	3	1	7	9	12	9	19	14	12	10	12
Devons	—	—	—	—	5	2	6	7	5	3	8	1	2	1	2	—	4	—	4	4	—
Red Polls	64	—	—	1	11	12	17	23	13	17	6	17	17	13	23	22	10	16	26	28	19
Blue Albions	—	—	—	—	—	—	—	—	—	4	5	4	—	2	1	1	—	—	—	—	—
Welsh Blacks	—	—	—	—	—	—	—	4	—	—	2	1	—	—	—	—	—	4	3	6	2
Ayrshires	17	—	—	—	—	—	2	20	16	15	31	26	25	18	21	21	22	12	30	22	27
Guernseys	33	6	5	7	16	14	19	15	10	16	18	14	10	10	12	20	12	20	16	21	17
Jerseys	212	18	9	10	22	21	24	27	25	32	24	25	22	22	22	18	27	24	25	22	37
Kerries	10	5	—	—	4	8	17	13	7	10	7	5	2	4	1	4	1	—	5	—	2
Dexters	8	—	—	—	6	5	3	3	8	2	3	3	5	4	5	5	5	7	3	1	4
TOTALS	683	62	45	45	94	111	173	187	143	148	151	149	133	130	147	140	159	138	165	165	168

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1927, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS AND POINTS.

Year.	No.	Breed.	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs. ozs.	lbs.	
1928	20	Shorthorns	60	1 4¾	34.12	23.13
1929	27	,,	51	1 9	31.62	26.79
1930	21	,,	50	1 9	31.98	26.86
1931	26	,,	53	1 14	33.92	31.73
1932	24	,,	38	1 14½	35.13	31.13
1933	18	,,	42	1 14	30.34	31.84
1934	22	,,	47	1 9	36.78	29.89
1935	22	,,	43	2.19	28.19	35.43
1936	20	,,	52	1.99	35.60	40.63
1928	4	Lincoln Reds	33	2 2	29.76	34.06
1929	4	,,	33½	2 3¼	28.39	35.30
1930	8	,,	60½	2 0½	31.60	35.01
1931	8	,,	28	2 1½	31.00	33.59
1932	5	,,	30	1 10	36.65	26.10
1933	4	,,	57	1 11½	32.82	30.40
1934	3	,,	80	1 10¼	26.78	30.50
1935	10	,,	53	2.22	26.53	35.62
1936	7	,,	62	2.33	26.58	47.97
1928	19	British Friesians	52	1 14	33.45	31.74
1929	16	,,	31¾	1 15½	37.78	31.37
1930	19	,,	64½	1 14	32.65	32.18
1931	16	,,	34	2 3	34.60	35.15
1932	30	,,	28	1 15½	35.48	32.02
1933	19	,,	28	2 5¼	30.17	37.74
1934	16	,,	42	2 5	33.36	38.92
1935	19	,,	34	2.33	30.17	37.58
1936	20	,,	44	2.32	31.15	46.06
1928	2	South Devons	54	2 3½	25.67	37.40
1929	3	,,	95	2 6¾	26.65	44.03
1930	6	,,	47¾	2 3	26.68	35.54
1931	9	,,	54	2 3	25.70	37.10
1932	19	,,	65	1 13¾	27.26	32.57
1933	14	,,	34	1 14	26.40	30.10
1934	12	,,	39	2 2¼	26.20	35.02
1935	10	,,	50	2.24	23.52	35.90
1936	12	,,	36	2.64	22.85	52.32
1928	6	Dairy South Devon	116	2 8½	19.41	47.78
1929	6	,,	93	2 3¼	26.75	40.75
1930	6	,,	54	2 1⅓	27.15	37.39
1928	2	Devons	213	1 2	22.55	30.00
1929	1	,,	39	1 9	39.60	25.00
1930	2	,,	30	1 0¾	34.32	23.35
1932	4	,,	103	1 5	27.31	27.12
1934	4	,,	76	1 11½	25.19	31.50
1935	4	,,	42	1.95	27.66	31.37
1928	17	Red Polls	67	1 13¼	28.24	32.21
1929	13	,,	43	1 9	31.72	26.01
1930	23	,,	52¼	1 10¼	33.25	38.73
1931	12	,,	50	1 15¼	30.04	32.82
1932	10	,,	56	1 12¾	32.64	30.77
1933	16	,,	73	1 10	31.53	28.75
1934	26	,,	58	1 9	32.84	27.33
1935	28	,,	28	1.96	27.41	31.42
1936	19	,,	40	1.99	29.27	40.19

TABLE II.—NUMBER OF CATTLE OF THE VARIOUS BREEDS TESTED SINCE 1927, WITH THEIR AVERAGE PERIOD OF LACTATION, WEIGHT OF BUTTER, BUTTER RATIOS AND POINTS—*Continued.*

Year.	No.	Breed.	Average No. of Days in Milk.	Average Weight of Butter.	Average Butter Ratio.	Average No. of Points.
				lbs. ozs.	lbs.	
1929 ...	2	Blue Albions	31	1 13¼	31.64	29.25
1930 ...	1	,, ...	58	2 8½	22.90	40.50
1931 ...	1	,, ...	26	1 10	30.10	26.00
1933 ...	4	Welsh Blacks	42	1 13¾	29.66	30.43
1934 ...	3	,, ...	46	1 5	39.07	21.81
1935 ...	6	,, ...	31	2.01	23.66	32.33
1936 ...	2	,, ...	36	2.14	26.78	42.87
1928 ...	25	Ayrshires	36	2 3¾	25.69	36.38
1929 ...	18	,, ...	37¾	2 1	29.53	33.43
1930 ...	21	,, ...	54	2 2	27.02	34.05
1931 ...	21	,, ...	35	2 4½	27.20	36.19
1932 ...	22	,, ...	35	2 3½	28.72	36.58
1933 ...	12	,, ...	34	2 3¾	25.84	35.83
1934 ...	30	,, ...	32	2 5¼	25.60	37.28
1935 ...	22	,, ...	29	2.35	26.17	37.63
1936 ...	27	,, ...	28	2.34	24.44	45.00
1928 ...	10	Guernseys	110	1 13¾	21.75	35.34
1929 ...	10	,, ...	84	2 0¾	24.17	37.16
1930 ...	12	,, ...	49	1 14	27.14	32.42
1931 ...	20	,, ...	96	1 13¼	24.80	34.35
1932 ...	12	,, ...	80	1 11¼	26.09	31.23
1933 ...	20	,, ...	87	1 11	25.28	30.95
1934 ...	16	,, ...	94	1 14½	24.27	36.01
1935 ...	21	,, ...	102	2.07	22.40	33.30
1936 ...	17	,, ...	76	2.12	23.83	47.33
1928 ...	22	Jerseys	136	2 2¾	17.99	43.50
1929 ...	22	,, ...	145	1 13¼	19.86	37.94
1930 ...	22	,, ...	37	1 14	15.09	37.61
1931 ...	18	,, ...	108	2 4	19.90	42.39
1932 ...	27	,, ...	113	2 0¼	20.34	37.76
1933 ...	24	,, ...	87	2 2	21.18	38.05
1934 ...	25	,, ...	100	2 3½	20.69	41.27
1935 ...	22	,, ...	118	2.28	19.97	36.56
1936 ...	37	,, ...	101	2.12	21.42	48.49
1928 ...	2	Kerries	63	1 2¼	32.84	21.50
1929 ...	4	,, ...	89	1 9	25.82	29.66
1930 ...	1	,, ...	47	2 1	23.00	33.00
1931 ...	4	,, ...	41	1 7	28.80	23.95
1932 ...	1	,, ...	92	2 0½	20.93	37.70
1934 ...	5	,, ...	68	2 3	20.22	38.82
1936 ...	2	,, ...	75	0.97	29.07	40.00
1928 ...	5	Dexters	79	1 5½	25.49	25.55
1929 ...	4	,, ...	112	1 6	25.51	29.04
1930 ...	5	,, ...	35	1 5½	26.45	23.89
1931 ...	5	,, ...	106	0 14½	29.70	21.07
1932 ...	5	,, ...	153	1 1⅓	26.67	25.67
1933 ...	7	,, ...	109	1 0⅛	28.01	23.59
1934 ...	3	,, ...	143	1 5	25.36	30.23
1935 ...	1	,, ...	161	1.59	25.41	37.50
1936 ...	4	,, ...	103	1.33	25.89	35.40

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS SINCE 1927.

Year.	Breed.	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk, 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1928	Shorthorns ...	9	1 5¼	6	1 6½	5	1 1½	—	—
1929	,, ...	17	1 10¾	6	1 6	3	1 3½	1	2 0¼
1930	,, ...	10	1 7	7	1 13¾	3	1 7	1	1 8
1931	,, ...	15	1 14½	6	1 11½	4	1 11	1	2 9½
1932	,, ...	19	1 7¼	5	1 9	—	—	—	—
1933	,, ...	15	1 15	—	—	3	1 10	—	—
1934	,, ...	14	1 15	6	1 11	2	1 1½	—	—
1935	,, ...	17	2.21	4	1.86	—	—	1	1.5
1936	,, ...	10	2.03	9	1.91	1	2.34	—	—
1928	Lincoln Reds ...	4	2 2	—	—	—	—	—	—
1929	,, ...	4	2 3¼	—	—	—	—	—	—
1930	,, ...	4	2 3	2	2 3¾	2	1 10¾	—	—
1931	,, ...	8	2 1½	—	—	—	—	—	—
1932	,, ...	5	1 10	—	—	—	—	—	—
1933	,, ...	3	1 14¼	—	—	—	—	1	1 2½
1934	,, ...	2	1 8	—	—	—	—	1	1 15½
1935	,,	7	2.45	1	1.75	1	1.65	1	1.62
1936	,, ...	4	2.76	2	1.71	—	—	1	1.98
1928	British Friesians	13	1 15	3	2 2½	3	1 4½	—	—
1929	,,	15	1 14	1	2 12	—	—	—	—
1930	,,	14	2 0	5	1 14½	—	—	—	—
1931	,,	15	2 3¼	—	—	1	1 10	—	—
1932	,,	27	2 2	3	1 9¾	—	—	—	—
1933	,,	18	2 5	1	1 15	—	—	—	—
1934	,,	12	2 6½	2	1 8½	1	2 5½	1	3 1
1935	,,	18	2.38	1	1.415	—	—	—	—
1936	,,	16	2.33	3	2.22	1	2.50	—	—
1928	South Devons ...	1	2 14	1	1 9	—	—	—	—
1929	,, ...	1	3 6	1	1 17	—	—	1	2 6½
1930	,, ...	6	2 3½	—	—	—	—	—	—
1931	,, ...	7	2 0¼	—	—	1	2 15½	1	2 9¼
1932	,, ...	9	1 12¾	7	1 14½	1	2 0	2	1 14½
1933	,, ...	13	1 13	1	3 0	—	—	—	—
1934	,, ...	9	2 2¾	3	2 1	—	—	—	—
1935	,, ...	8	2.33	1	2.12	—	—	1	1.62
1936	,, ...	11	2.71	1	1.87	—	—	—	—
1928	Dairy South Devon	—	—	1	2 6½	3	2 2½	1	3 12¾
1929	,, ...	1	2 10¾	3	1 15	1	1 13½	1	2 13½
1930	,, ...	3	2 3½	1	1 9	1	2 3¼	1	2 3¼
1928	Devons	—	—	—	—	—	—	1	1 1
1929	,, ...	1	1 9	—	—	—	—	—	—
1930	,, ...	—	—	1	0 9¼	—	—	1	1 8¼
1932	,, ...	1	1 4	1	1 2	1	1 12	1	1 2¼
1934	,, ...	—	—	3	2 0	1	0 15¼	—	—
1935	,, ...	3	1.98	1	1.9	—	—	—	—
1928	Red Polls ...	7	1 13	7	1 13	2	1 15¾	1	1 13
1929	,, ...	9	1 9¼	4	1 8¾	—	—	—	—
1930	,, ...	12	1 10½	8	1 10	2	1 7	1	2 7
1931	,, ...	9	1 15¾	2	1 9	—	—	1	2 6½
1932	,, ...	5	2 0½	4	1 9¾	—	—	1	1 6¾
1933	,, ...	5	1 12	9	1 9½	1	1 8	—	—
1934	,, ...	14	1 11	9	1 6	1	2 6¾	2	0 15¾
1935	,, ...	18	2.23	7	1.619	2	1.635	1	2.03
1936	,, ...	15	2.03	4	1.85	—	—	—	—

TABLE III.—AVERAGE YIELD OF BUTTER OF THE DIFFERENT BREEDS SINCE 1927—*Continued.*

Year.	Breed.	No. of Cows.	Days in Milk, 50.	No. of Cows.	Days in Milk. 100.	No. of Cows.	Days in Milk, 135.	No. of Cows.	Days in Milk, 190.
			lbs. ozs.		lbs. ozs.		lbs. ozs.		lbs. ozs.
1929	Blue Albions ...	2	1 13¼	—	—	—	—	—	—
1930	,, ...	1	2 8½	—	—	—	—	—	—
1931	,, ...	1	1 10	—	—	—	—	—	—
1933	Welsh Black ...	3	2 2	1	1 12	—	—	—	—
1934	,, ...	2	1 7½	1	0 15¾	—	—	—	—
1935	,, ...	6	2.01	—	—	—	—	—	—
1936	,, ...	2	2.14	—	—	—	—	—	—
1928	Ayrshires ...	21	2 4¾	3	1 13¼	1	2 0½	—	—
1929	,, ...	14	2 2	4	1 15	—	—	—	—
1930	,, ...	20	2 2¼	1	1 10¾	—	—	—	—
1931	,, ...	18	2 4½	3	1 14½	—	—	—	—
1932	,, ...	19	2 3¼	2	2 9	1	2 2	—	—
1933	,, ...	10	2 2¼	2	2 8	—	—	—	—
1934	,, ...	30	2 5¼	—	—	—	—	—	—
1935	,, ...	22	2.35	—	—	—	—	—	—
1936	,, ...	27	2.34	—	—	—	—	—	—
1928	Guernseys ...	3	1 14¼	3	2 0¾	1	1 11	1	2 3¼
1929	,, ...	4	2 0¼	3	2 8½	1	1 15	2	1 7
1930	,, ...	5	1 10½	5	2 1¼	—	—	1	1 11½
1931	,, ...	4	1 13¾	9	1 13¾	3	1 11¾	2	1 8¼
1932	,, ...	5	1 8	3	1 8	2	2 4	2	1 14¾
1933	,, ...	8	1 14¼	5	1 12½	4	1 7	1	0 14¾
1934	,, ...	2	2 1	8	1 15¾	4	1 13½	2	1 10½
1935	,, ...	7	2.343	5	1.764	4	2.126	3	2.075
1936	,, ...	9	2.21	1	2.11	1	1.95	2	1.73
1928	Jerseys	2	2 11½	2	2 6¾	7	2 2¼	8	2 1¼
1929	,, ...	2	1 8	5	2 2½	—	—	9	1 11
1930	,, ...	3	1 15½	7	1 15½	4	1 15	9	1 14¼
1931	,, ...	5	2 7¾	3	2 4	4	2 1	5	2 4
1932	,, ...	5	2 1	7	2 3½	6	2 3	7	1 12¾
1933	,, ...	10	2 1½	3	2 3½	7	2 1	2	2 7
1934	,, ...	4	2 5¼	9	2 5	5	2 2¼	5	2 2
1935	,, ...	4	2.58	5	2.516	5	2.24	4	2.12
1936	,, ...	9	2.04	11	2.26	6	1.99	7	2.18
1928	Kerries	1	0 15½	—	—	1	1 5	—	—
1929	,, ...	1	2 3¼	3	1 5½	—	—	—	—
1930	,, ...	1	2 1	—	—	—	—	—	—
1931	,, ...	2	1 8½	2	1 6	—	—	—	—
1932	,, ...	—	—	1	2 0½	—	—	—	—
1934	,, ...	2	2 6¾	2	1 15¾	—	—	1	2 2½
1936	,, ...	1	1.94	—	—	—	—	—	—
1928	Dexters ...	1	1 4	3	1 7¾	—	—	1	1 0½
1929	,, ...	—	—	2	1 8½	—	—	2	1 3½
1930	,, ...	3	1 6	1	1 5	1	1 5	—	—
1931	,, ...	—	—	2	1 0½	2	1 0	1	0 8
1932	,, ...	—	—	—	—	3	1 2	1	1 2½
1933	,, ...	1	1 0½	1	0 11	1	1 7	3	1 0¼
1934	,, ...	—	—	1	1 12¾	—	—	2	2 1
1935	,, ...	—	—	—	—	—	—	1	1.59
1936	,, ...	1	1.01	1	1.49	—	—	2	1.41

BUTTER TESTS—SHORTHORNS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
2	W.J Whitehand ...	Hethersett Barrington 17th	1320	Oct. 3, 1928	Sept. 4	45	22.5	21.6	20.7	64.8	1	15½	32.89	5	31.5	0.5	37.0	H.C.
6	J. P. Morgan ...	Aldenham Barrington Lass 7th	1595	July 17, 1931	July 22	89	20.5	17.9	19.8	58.2	2	0½	28.67	8	32.5	4.9	45.4	H.C.
8	J. W. G. Cronk ...	Silverstream Ringlet 5th	1446	Feb. 19, 1931	Sept. 10	39	19.2	19.2	19.6	58.0	2	1½	27.75	5	33.5	—	38.5	H.C.
9	W. H. Vigus... ...	Revels Coronet ...	1659	June 30, 1929	Aug. 3	77	10.7	11.1	13.9	35.7	1	2½	31.04	5	18.5	3.7	27.2	
10	A. Brittain & Son ...	Steppingley Clover's Gift 4th	1569	Sept. 28, 1927	Aug. 23	57	29.2	29.3	27.5	86.0	1	15½	43.65	8	31.5	1.7	41.2	H.C.
11	F. Chapman ...	Chevet Daygirl ...	1297	Oct. 6, 1930	Sept. 13	36	23.9	23.7	23.2	70.8	2	0¾	34.71	6	32.75	—	38.75	H.C.
18	J. J. McMenemy ...	Parkhouse Strawberry 16th	1340	Mar. 8, 1932	Aug. 26	54	28.3	28.5	21.8	78.6	2	13	27.97	6	45.0	1.4	52.4	4th Prize
20	C. J. Allday ...	Fothering Foggathorpe 2nd	1256	Apr. 21, 1932	Sept. 20	29	22.5	22.6	22.0	67.1	2	13¾	23.54	8	45.75	—	53.75	3rd Prize
21	John Day	Huxham Duchess Rose 7th	1349	Dec. 15, 1931	May 20	152	22.0	24.1	24.9	71.0	2	5½	30.34	6	37.5	11.2	54.70	2nd Prize
22	J. P. Morgan ...	Aldenham Kirklevington Lady 6th	1601	June 4, 1932	July 13	98	24.2	23.3	24.0	71.5	2	6¾	29.67	6	38.75	5.8	50.55	Reserve
23	J. P. Morgan ...	Aldenham Wild Queen 18th	1648	Oct. 8, 1931	Aug. 24	56	25.2	23.8	23.7	72.7	2	2	34.29	7	34.00	1.6	42.60	H.C.
24	W. H. Vigus... ..	Revels Tulip 2nd...	1393	Nov. 1, 1932	Aug. 23	57	15.5	16.7	16.0	48.2	1	4	38.56	5	20.00	1.7	26.70	
27	W. H. Vigus... ...	Bennington Duchess	1201	Feb. 15, 1932	Sept. 29	20	19.4	19.3	18.3	57.0	1	13	31.49	8	29.00	—	37.00	H.C.
28	Robert Raw ...	Gifts Surprise ...	1278	Apr. 18, 1932	Sept. 23	26	15.0	15.3	17.2	47.5	1	3¾	48.93	9	19.75	—	28.75	H.C.
31	J. Timberlake ...	Hastoe Bective 5th	1323	Sept. 21, 1931	May 20	152	25.2	25.4	24.1	74.7				Disq.				
35	Capt. A. S. Wills ...	Thornby Foggathorpe 43rd	1262	Sept. 27, 1931	Sept. 11	38	24.0	23.0	20.9	67.9	1	13	37.51	8	29.00	—	37.00	H.C.
42	W. H. Vigus... ...	Revels Princess Pearl	1090	Aug. 26, 1933	Aug. 24	56	16.6	16.2	16.2	49.0	1	15¾	24.75	8	31.75	1.6	41.35	H.C.

BUTTER TESTS—SHORTHORNS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
53	Capt. A. S. Wills ...	Thornby Barrington Duchess 9th	1098	Sept. 29, 1933	Aug. 27	53	15.7	15.0	17.7	48.4	1	7½	32.93	9	23.50	1.3	33.80	H.C.
58	H. Brazier	Melody	1323	Unknown.	Sept. 25	24	22.9	20.8	23.4	67.1	2	6	28.31	8	38.00	--	46.00	H.C.
59	W. H. Nelson ...	Betty	1312	1931	Oct. 5	14	20.8	19.8	19.2	59.8	1	14½	31.47	8	30.5	—	38.5	H.C.
60	J. W. Shirley ...	Lodge Snowdrop	1411	Unknown.	Sept. 24	25	28.5	27.3	26.0	81.8	2	4½	35.88	6	36.5	—	42.5	H.C.
64	S. E. Howse & Sons	Lucy	1268	Nov. 20, 1929	Aug. 7	73	27.7	27.7	28.3	83.7				Disq.				
77	Chivers & Sons, Ltd.	Histon Acacia 5th	1446	Oct. 20, 1930	Sept. 29	20	25.1	25.2	24.8	75.1	4	9	16.47	6	73.00	--	79.00	1st Prize
78	Chivers & Sons, Ltd.	Histon Dairymaid 69th	1359	Apr. 11, 1931	Aug. 25	55	19.4	22.5	21.1	63.0	1	10¼	38.41	8	26.25	1.5	35.75	H.C.
80	Chivers & Sons, Ltd.	Histon Dairymaid 65th	1291	Aug. 28, 1930	Sept. 5	44	23.2	22.8	20.4	66.4	1	15½	33.54	9	31.50	0.4	40.90	H.C.
83	F. Sainsbury... ...	Wratting Mimulus 2nd	1309	Feb. 28, 1931	Aug. 5	75	17.6	16.2	17.9	51.7	1	12½	29.04	8	28.50	3.5	40.00	H.C.
85	J. Evens & Son ...	Burton Red Rose 10th	1422	Jan. 8, 1932	May 17	155	18.6	15.6	16.4	50.6	1	15¾	25.56	8	31.75	11.5	51.25	5th Prize
86	J. Evens & Son ...	Burton Venetia 2nd	1301	Nov. 5, 1930	Sept. 9	40	25.0	21.8	24.5	71.3	2	4¾	31.14	8	36.75	—	44.75	H.C.
87	J. Evens & Son ...	Burton Nancy 25th	1451	May 18, 1931	Sept. 5	44	22.4	19.4	17.4	59.2	2	3¾	26.67	8	35.75	0.4	44.15	H.C.

BUTTER TESTS—SHORTHORNS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
2	Hethersett Barrington 17th	9 5 a.m.	9 25 p.m.	20	61	52	56
6	Aldenham Barrington Lass 7th	9 5 ,,	9 35 ,,	35	61	52	56
8	Silverstream Ringlet 5th	9 12 ,,	9 30 ,,	18	61	52	54
9	Revels Coronet	9 10 ,,	9 42 ,,	32	61	52	57
10	Steppingley Clover's Gift 4th	9 10 ,,	9 34 ,,	24	61	52	60
11	Chevet Daygirl	9 32 ,,	10 00 ,,	28	62	52	56
18	Parkhouse Strawberry 16th	9 50 ,,	9 56 ,,	6	62	52	56
20	Fothering Foggathorpe 2nd	10 38 ,,	11 00 ,,	22	62	52	55
21	Huxham Duchess Rose 7th	9 20 ,,	9 45 ,,	25	61	52	59
22	Aldenham Kirklevington Lady 6th	9 53 ,,	10 21 ,,	28	62	52	58
23	Aldenham Wild Queen 18th	9 22 ,,	9 40 ,,	18	61	52	57
24	Revels Tulip 2nd	9 30 ,,	9 52 ,,	22	61	52	56
27	Bennington Duchess	9 21 ,,	9 40 ,,	19	61	52	56
28	Gift's Surprise	9 12 ,,	9 26 ,,	14	61	52	58
35	Thornby Foggathorpe 43rd	10 47 ,,	11 5 ,,	18	62	52	54
42	Revels Princess Pearl	9 17 ,,	10 0 ,,	43	61	52	58
53	Thornby Barrington Duchess 9th	11 26 ,,	12 0 noon	34	64	52	55
58	Melody	10 36 ,,	10 54 a.m.	18	62	52	54
59	Betty	11 10 ,,	11 45 ,,	35	64	52	54
60	Lodge Snowdrop	10 53 ,,	11 23 ,,	30	64	52	54
77	Histon Acacia 5th	11 45 ,,	12 2 p.m.	17	64	52	54
78	Histon Dairymaid 69th	9 26 ,,	9 50 a.m.	24	61	52	56
80	Histon Dairymaid 65th	10 46 ,,	11 10 ,,	24	61	52	54
83	Wratting Mimulus 2nd...	9 30 ,,	9 50 ,,	20	62	52	56
85	Burton Red Rose 10th	11 16 ,,	11 40 ,,	24	64	52	56
86	Burton Venetia 2nd	11 5 ,,	11 23 ,,	18	64	52	55
87	Burton Nancy 25th	10 27 ,,	10 45 ,,	18	63	52	54

BUTTER TESTS—BRITISH FRIESIANS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
99	Lord Rayleigh's Farms	Terling Breeze 34th	1504	Feb. 21, 1929	Sept. 26	23	30.6	27.5	27.3	85.4	2	4¾	37.29	8	36.75	—	44.75	H.C.
100	Lord Rayleigh's Farms	Terling Ivory 19th	1330	Jan. 22, 1929	Sept. 1	48	26.2	29.5	28.4	84.1				Disq.				
101	Lord Rayleigh's Farms	Terling Contented 26th	1358	Oct. 27, 1928	Aug. 2	78	28.8	27.8	27.1	83.7	2	15¾	28.09	7	47.75	3.8	58.55	2nd Prize
104	W. Curtis & Son ...	Sukar Edna 2nd ...	1591	Aug. 1, 1930	Sept. 18	31	26.7	26.3	27.4	80.4	1	2¾	69.31	10	18.75	—	28.75	
105	W. Twentyman ...	Winchester Danae	1310	Feb. 26, 1931	Sept. 18	31	23.7	23.5	22.5	69.7	2	15¼	23.63	10	47.25	—	57.25	5th Prize
108	Strutt & Parker (Farms), Ltd.	Lavenham Chancery 3rd	1704	Aug. 12, 1925	July 20	91	26.6	30.0	28.0	84.6	2	9	33.05	7	41.0	5.1	53.1	H.C.
110	Strutt & Parker (Farms), Ltd.	Lavenham Annie 29th	1330	Oct. 20, 1930	Oct. 5	14	24.9	25.6	25.9	76.4	3	0	25.47	6	48.0	—	54.0	Reserve
114	C. Ball	Oakham Dainty ...	1480	Apr. 20, 1927	June 14	127	23.6	25.5	23.7	72.8	2	8	29.12	9	40.00	8.7	57.7	4th Prize
121	F. J. Carter	Chelmsford Betty	1442	Sept. 19, 1928	Sept. 26	23	23.9	22.8	24.0	70.7	2	8¾	27.83	3	40.75	—	43.75	H.C.
125	Lord Rayleigh's Farms	Terling Lead 42nd	1400	May 11, 1932	Sept. 6	43	25.5	25.6	26.4	77.5	2	7¾	31.25	5	39.75	0.3	45.05	H.C.
127	W. Curtis & Son ...	Abingworth Ilene	1318	Jan. 2, 1933	Sept. 24	25	25.6	26.4	27.3	79.3	2	3¼	36.05	7	35.25	—	42.25	H.C.
129	C. Ball	Oakham Dolce ...	1285	Jan. 1, 1933	Oct. 2	17	23.8	24.9	23.9	72.6	3	8¼	20.68	10	56.25	—	66.25	1st Prize
130	A. Weightman ...	Herrington Melody	1543	Dec. 19, 1932	Sept. 14	35	21.9	22.2	19.3	63.4	1	12¾	35.42	8	28.75	—	36.75	H.C.
131	A. Weightman ...	Herrington Maureen	1344	Nov. 5, 1932	Sept. 25	24	21.2	22.8	19.8	63.8	2	3¼	29.00	9	35.25	—	44.25	H.C.
134	F. J. Carter	Gilston Arlod Moya	1530	Mar. 5, 1933	Sept. 23	26	21.7	21.7	20.6	64.0	2	0½	31.53	7	32.50	—	39.50	H.C.
135	F. W. Gilbert ...	Saundby Wild Rose 2nd	1468	Sept. 28, 1931	Sept. 24	25	27.0	32.2	30.1	89.3	2	12	32.47	6	44.00	—	50.00	H.C.
137	G. J. Caddey ...	Egham Darling 7th	1160	Oct. 15, 1932	Sept. 23	26	20.5	24.0	22.7	67.2	1	14½	35.18	8	30.5	—	38.50	H.C.

BUTTER TESTS—BRITISH FRIESIANS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
138	G. J. Caddey ...	Egham Sapphire 5th	1220	Sept. 18, 1932	Sept. 28	21	18.9	21.0	20.7	60.6	1	6¼	43.91	9	22.25	—	31.25	H.C.
140	H. C. Alexander ...	Kenton Blossom ...	1437	Dec. 6, 1931	Sept. 29	20	28.4	24.7	24.9	78.0	3	0	26.00	10	48.0	—	58.00	3rd Prize
143	C. Ball	Oakham Dazzle ...	1344	Aug. 24, 1933	Sept. 19	30	18.4	19.8	18.3	56.5	2	2	26.65	9	34.00	—	43.00	H.C.
148	F. J. Carter	Chelmsford Schraat 5th	1299	Oct. 7, 1933	July 27	84	16.2	18.0	17.9	52.1	1	2¼	45.70	6	18.25	4.4	28.65	H.C.
149	F. J. Carter	Chelmsford Peach 11th	1303	Dec. 7, 1933	May 14	158	20.9	17.5	19.4	57.8				Disq.				

BUTTER TESTS—BRITISH FRIESIANS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
99	Terling Breeze 34th	10 13 a.m.	10 30 a.m.	17	63	52	54
101	Terling Contented 26th	10 5 ,,	10 35 ,,	30	62	52	59
104	Sukar Edna 2nd	10 35 ,,	11 16 ,,	41	63	52	54
105	Winchester Danae	10 35 ,,	10 55 ,,	20	63	52	55
108	Lavenham Chancery 3rd	10 0 ,,	10 25 ,,	25	63	52	55
110	Lavenham Annie 29th	10 10 ,,	10 30 ,,	20	63	52	54
114	Oakham Dainty	10 15 ,,	10 40 ,,	25	63	52	56
121	Chelmsford Betty	10 20 ,,	10 36 ,,	16	63	52	54
125	Terling Lead 42nd	10 15 ,,	10 37 ,,	22	63	52	55
127	Abingworth Ilene	10 30 ,,	11 24 ,,	54	63	52	55
129	Oakham Dolce	10 20 ,,	10 40 ,,	20	63	52	55
130	Herrington Melody	10 30 ,,	10 55 ,,	25	63	52	58
131	Herrington Maureen	11 5 ,,	11 35 ,,	30	64	52	54
134	Gilston Arlod Moya	10 50 ,,	11 15 ,,	25	61	52	52
135	Saundby Wild Rose 2nd	12 10 p.m.	12 45 p.m.	35	64	52	55
137	Egham Darling 7th	10 40 a.m.	11 0 a.m.	20	63	52	57
138	Egham Sapphire 5th	10 55 ,,	11 22 ,,	27	64	52	56
140	Kenton Blossom	10 52 ,,	11 6 ,,	14	61	52	55
143	Oakham Dazzle	11 0 ,,	12 0 noon	60	64	52	56
148	Chelmsford Schraat 5th	11 40 ,,	12 37 p.m.	53	64	52	58

BUTTER TESTS—SOUTH DEVONS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1936.		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs						
153	W. Hunt	Tracey's Milkmaid 5th	1644	Apr. 5, 1924	Oct. 5	14	30.4	27.4	28.0	85.8	3	9¾	23.83	10	57.75	—	67.75	3rd Prize
155	Dartington Hall, Ltd.	Dartington Lassie	1603	Mar. 1928	Aug. 30	50	25.5	30.3	22.8	78.6	2	12¼	28.38	9	44.25	1.0	54.25	Reserve
156	G. Wills	Milkmaid 3rd ...	1983	Oct. 3, 1929	Oct. 1	18	31.4	20.2	20.3	71.9	3	13¾	18.68	10	61.75	—	71.75	1st Prize
157	G. Wills	Rydon Milkmaid 7th	1670	Sept. 20, 1932	Sept. 24	25	20.6	21.3	17.0	58.9	3	9¼	16.45	10	57.25	—	67.25	4th Prize
158	Dartington Hall, Ltd.	Dartington Dairymaid	1528	Nov. 19, 1931	Sept. 7	42	24.8	23.5	22.6	70.9	3	13¼	18.51	10	61.25	0.2	71.45	2nd Prize
159	Dartington Hall, Ltd.	Dartington Cowslip 1st	1470	Jan. 17, 1933	Aug. 31	49	21.9	20.7	19.4	62.0	2	8½	24.51	10	40.50	0.9	51.40	H.C.
160	Dartington Hall, Ltd.	Dartington Hall Nervous Alice 2nd	1604	Feb. 12, 1932	Sept. 18	31	21.6	20.3	20.8	62.7	2	4	27.87	10	36.00	—	46.00	H.C.
162	W. E. Dommett ...	C.P. Kitty 6th ...	1560	Dec. 2, 1931	Sept. 12	37	20.7	20.7	20.3	61.7	1	11¼	36.08	8	27.25	—	35.25	H.C.
163	G. Wills	Rydon Milkmaid 9th	1436	Sept. 30, 1933	Sept. 17	32	16.8	14.9	14.5	46.2	2	5¾	19.83	9	37.75	—	46.75	H.C.
164	G. Wills	Rydon Pink 20th	1609	Aug. 14, 1933	Sept. 17	32	12.7	11.1	10.8	34.6	1	7¼	23.70	9	23.25	—	32.25	H.C.
165	J. T. Dennis ...	Winsor Alma 2nd	1134	Sept. 20, 1933	Aug. 20	60	15.8	16.3	15.7	47.8	1	14	25.56	10	30.00	2.0	42.00	H.C.
167	Dartington Hall, Ltd.	Dartington Primula	1292	Sept. 23, 1933	Sept. 12	37	16.2	14.9	13.8	44.9	1	15¾	22.68	10	31.75	—	41.75	H.C.

BUTTER TESTS—SOUTH DEVONS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature° F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
153	Tracey's Milkmaid 5th	11 5 a.m.	11 35 a.m.	30	64	52	52
155	Dartington Lassie	11 26 ,,	11 50 ,,	24	64	52	55
156	Milkmaid 3rd	11 15 ,,	11 32 ,,	17	64	52	53
157	Rydon Milkmaid 7th	12 5 p.m.	12 26 p.m.	21	64	52	52
158	Dartington Dairymaid	2 18 ,,	2 37 ,,	19	63	52	54
159	Dartington Cowslip 1st	12 21 ,,	12 55 ,,	34	64	52	54
160	Dartington Hall Nervous Alice 2nd	11 30 a.m.	12 14 ,,	44	64	52	56
162	C. P. Kitty 6th	11 50 ,,	12 15 ,,	25	64	52	56
163	Rydon Milkmaid 9th	12 10 p.m.	12 55 ,,	45	64	52	55
164	Rydon Pink 20th	12 0 noon	12 20 ,,	20	64	52	57
165	Winsor Alma 2nd	11 30 a.m.	11 56 a.m.	26	64	52	53
167	Dartington Primula	12 5 p.m.	12 40 p.m.	35	64	52	54

BUTTER TESTS—RED POLLS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
169	Earl of Radnor ...	Longford Ruby 7th	1079	July 16, 1928	Sept. 29	20	19.7	20.5	20.9	61.1	2	7½	24.74	9	39.50	—	48.50	4th Prize
170	Lord Cranworth ...	Grundisburgh Wander Duck	1274	Mar. 16, 1929	Sept. 17	32	20.5	21.3	20.6	62.4	2	11	23.20	7	43.00	—	50.0	2nd Prize
172	Lt.-Col. C. F. Heyworth-Savage	Bradwell Sonia ...	1228	Nov. 25, 1930	Oct. 1	18	18.9	19.2	18.4	56.5	2	0	28.25	8	32.00	—	40.00	H.C.
174	Mrs. H. D. Lewis ...	Eastwell Marshmallow	1304	Sept. 21, 1929	Sept. 30	19	23.2	24.2	25.5	72.9	1	12½	40.96	6	28.5	—	34.50	H.C.
175	Miss M. H. Bouverie	Ranksborough Rosie	1324	Nov. 13, 1930	Sept. 17	32	22.3	23.9	24.3	70.5	2	9½	27.12	7	41.50	—	48.50	3rd Prize
177	Capt. Sir H. E. de Trafford, Bt.	Binfield Daisy ...	1175	Sept. 13, 1928	Sept. 23	26	17.9	18.8	18.2	54.9	2	2	25.90	10	34.00	—	44.00	Reserve
178	Capt. Sir H. E. de Trafford, Bt.	Bredfield Nancy 2nd	1177	Mar. 22, 1931	Sept. 26	23	15.1	14.8	15.6	45.5	2	1	22.09	10	33.00	—	43.00	H.C.
179	Brooks (Mistley), Ltd.	Mistley Amethyst	1343	Jan. 24, 1931	Sept. 4	45	19.6	23.2	22.5	65.3	2	2¼	30.51	6	34.25	0.5	40.75	H.C.
180	Mrs. M. L. Griffith ...	Hallingbury Madeline	1067	Oct. 28, 1930	Aug. 30	50	15.3	18.6	18.4	52.3	1	10	32.28	7	26.00	1.0	34.00	H.C.
181	Mrs. R. M. Foot ...	White Hill Charming Delight	1096	Jan. 4, 1930	Sept. 8	41	20.7	19.8	20.4	60.9	2	4	27.07	7	36.00	0.1	43.10	H.C.
182	S. Paul	Holton Rainbow 6th	1458	Aug. 17, 1926	Sept. 27	22	18.3	20.7	19.7	58.7	2	1¼	28.36	8	33.25	—	41.25	H.C.
184	Earl of Radnor ...	Longford Loafer ...	1164	Sept. 2, 1931	Aug. 24	56	24.5	18.4	22.8	65.7	2	10¾	24.98	9	42.75	1.6	53.35	1st Prize
185	Sir Guy Hambling, Bt.	Yoxford Maiden 3rd	1208	Aug. 20, 1932	Sept. 3	46	20.9	22.5	22.5	65.9	2	3¼	29.68	6	35.75	0.6	42.35	H.C.
187	Mrs. M. L. Griffith ...	Diss Mermaid ...	1300	Feb. 22, 1932	Sept. 1	48	14.1	13.8	13.8	41.7	1	3½	34.46	5	19.50	0.8	25.30	
189	Mrs. R. M. Foot ...	White Hill Charming Rose	991	Dec. 14, 1931	Aug. 21	59	20.6	19.1	18.1	57.8	1	6½	41.29	8	22.5	1.9	32.40	H.C.
190	Mrs. R. M. Foot ...	White Hill Charming Ruby	1192	Jan. 20, 1933	Sept. 22	27	12.1	14.7	13.7	40.5	1	5½	30.22	7	21.50	—	28.50	H.C.
192	S. Paul	Kirton Sundial ...	1148	Jan. 27, 1932	Aug. 28	52	27.3	28.8	26.6	82.7	2	5	35.80	6	37.00	1.2	44.20	5th Prize

BUTTER TESTS—RED POLLS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
193	S. Paul	Kirton Oaken ...	1120	Nov. 5, 1932	July 18	93	11.8	14.3	12.7	38.8	1	1	36.60	7	17.00	5.3	29.30	H.C.
194	Lady Loder	Brightwell Prue 4th	1212	Feb. 23, 1932	Sept. 5	44	19.0	18.2	16.2	53.4	2	0¼	26.57	8	32.25	0.4	40.65	H.C.

BUTTER TESTS—RED POLLS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
169	Longford Ruby 7th	2 20 p.m.	2 36 p.m.	16	63	52	54
170	Grundisburgh Wander Duck	2 20 ,,	2 40 ,,	20	63	52	53
172	Bradwell Sonia	12 30 ,,	12 52 ,,	22	64	52	54
174	Eastwell Marshmallow	12 0 noon	12 16 ,,	16	64	52	54
175	Ranksborough Rosie	11 50 a.m.	12 10 ,,	20	64	52	53
177	Binfield Daisy	2 17 p.m.	2 45 ,,	28	63	52	54
178	Bredfield Nancy 2nd	11 33 a.m.	12 0 noon	27	63	52	54
179	Mistley Amethyst	2 17 p.m.	2 42 p.m.	25	63	52	56
180	Hallingbury Madeline	12 0 noon	12 25 ,,	25	64	52	54
181	White Hill Charming Delight	11 50 a.m.	12 7 ,,	17	64	52	55
182	Holton Rainbow 6th	6 55 p.m.	7 15 ,,	20	62	52	54
184	Longford Loafer	2 15 ,,	2 35 ,,	20	63	52	54
185	Yoxford Maiden 3rd	2 12 ,,	2 30 ,,	18	64	52	56
187	Diss Mermaid	12 15 ,,	12 40 ,,	25	64	52	54
189	White Hill Charming Rose	2 15 ,,	2 55 ,,	40	63	52	54
190	White Hill Charming Ruby	2 12 ,,	3 0 ,,	48	63	52	55
192	Kirton Sundial	2 25 ,,	2 50 ,,	25	63	52	54
193	Kirton Oaken	12 25 ,,	12 48 ,,	23	64	52	54
194	Brightwell Prue 4th	2 55 ,,	3 25 ,,	30	64	52	56

BUTTER TESTS—AYRSHIRES.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1936.		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs						
217	M. Hastings ...	North Boig Bonny Betty	1208	Apr. 18, 1930	Sept. 27	22	24.9	24.5	22.7	72.1	3	3	22.67	7	51.00	—	58.00	3rd Prize
220	J. Baird	Birnieknowe Adelaide	1148	Oct. 20, 1926	Oct. 2	17	25.6	25.6	25.7	76.9	3	3½	23.96	8	51.50	—	59.50	2nd Prize
221	R. Dunlop	Chapelhill Dora ...	1194	Nov. 5, 1930	Sept. 29	20	21.3	21.5	21.7	64.5	2	5¼	27.80	10	37.25	—	47.25	H.C.
224	Capt. W. B. Dronsfield	Lyonstone Delight 3rd	1051	Mar. 4, 1931	Oct. 5	14	19.6	21.0	19.5	60.1	2	5	26.02	8	37.00	—	45.00	H.C.
225	Capt. W. B. Dronsfield	Hall Iris	824	Mar. 28, 1925	Oct. 2	17	20.6	19.5	19.6	59.7	1	9¾	37.31	8	25.75	—	33.75	
226	Mrs. R. M. Foot ...	Langbarns Blossom 2nd	1084	Feb. 20, 1928	Sept. 2	47	27.1	26.2	24.8	78.1	2	7¼	31.88	8	39.25	0.7	47.95	H.C.
231	A. W. Montgomerie...	Lessnessock Edith 10th	1242	Sept. 7, 1929	Sept. 9	40	17.9	19.0	19.1	56.0	2	2¼	26.29	6	34.25	—	40.25	H.C.
234	D. Mackay	Blackbyres Princess 3rd	1162	Apr. 24, 1929	Sept. 25	24	27.6	30.3	27.4	85.3	2	4½	37.41	7	36.50	—	43.50	H.C.
236	J. & J. McIntyre ...	Logan Mains Trim 3rd	1256	July 18, 1929	Sept. 21	28	27.5	27.2	26.5	81.2	2	8¼	32.22	7	40.25	—	47.25	H.C.
237	J. Howie	Mains Margaret 3rd	1201	Mar. 18, 1931	Sept. 12	37	25.1	22.0	26.8	73.9	2	10¼	28.10	9	42.25	—	51.25	H.C.
238	J. Turner	Loaninghead Pansy 2nd	1138	Dec. 8, 1929	Oct. 1	18	22.6	22.7	22.9	68.2	3	0	22.73	7	48.00	—	55.00	4th Prize
239	G. Barbour	Relief Lady Grace 2nd	1153	Apr. 16, 1931	Oct. 1	18	16.3	15.5	15.4	47.2	2	12¾	16.92	5	44.75	—	49.75	H.C.
241	A. Barclay	Compton Rosetta	1076	Sept. 16, 1930	Sept. 27	22	24.2	24.7	26.3	75.2	2	13¾	26.39	7	45.75	—	52.75	5th Prize
244	W. H. Slater ...	West Green White Silk	1125	Apr. 1, 1932	Sept. 6	43	19.9	19.5	20.4	59.8	2	2½	27.81	7	34.50	0.3	41.80	H.C.
246	Eshott Pedigree Stock Farms	Eshott Quicksilver	1031	Oct. 19, 1932	Sept. 28	21	21.8	22.6	20.7	65.1	2	14	22.68	6	46.00	—	52.00	Reserve
247	A. W. Montgomerie...	Harleyholm Bunty 10th	1023	Nov. 21, 1932	Sept. 15	34	18.7	18.4	17.4	54.5	2	3½	24.66	7	35.50	—	42.50	H.C.
248	A. W. Montgomerie...	Lessnessock Lily	1191	May 8, 1933	Sept. 19	30	19.3	20.0	19.2	58.5	1	8½	38.24	7	24.50	—	31.50	H.C.

BUTTER TESTS—AYRSHIRES—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
			lbs.		1936.		Morn. lbs.	Aft. lbs.	Even. lbs.	Total lbs.	lbs	ozs						
250	J. Turner	Loaninghead Lady Emblem	1044	Nov. 29, 1931	Oct. 1	18	20.9	19.2	19.1	59.2	3	5	17.89	7	53.00	—	60.00	1st Prize
251	G. Barbour	Auchengibbert Ena	1018	Apr. 3, 1933	Oct. 3	16	11.8	9.5	9.9	31.2	1	11	18.46	7	27.00	—	34.00	H.C.
252	J. Bone	Mains of Park Doll	1296	Feb. 2, 1932	Sept. 12	37	22.3	23.9	22.3	68.5	1	11¾	39.37	6	27.75	—	33.75	H.C.
253	J. G. Mackie ...	Relief Julia ...	1032	Sept. 10, 1931	Sept. 28	21	19.9	17.3	16.0	53.2	2	7	21.80	9	39.00	—	48.00	H.C.
259	D. Mackay	Mackays Princess Royal 2nd	1039	May 22, 1932	Sept. 16	33	19.4	20.4	19.8	59.6	2	12	21.67	7	44.00	—	51.00	H.C.
262	Clement Estates Co.	Howwell Gloria 2nd	956	Dec. 19, 1933	Sept. 16	33	17.4	16.1	18.0	51.5	1	14	27.54	9	30.00	—	39.00	H.C.
264	G. A. McIlwraith ...	Stannock White Queenie	1201	Jan. 20, 1934	Sept. 15	34	15.7	17.2	17.2	50.1	1	13¾	26.94	8	29.75	—	37.75	H.C.
265	Capt. W. B. Dronsfield	Wilmcote Lily White	1048	Oct. 23, 1933	Sept. 22	27	15.1	18.1	14.9	48.1	1	11	28.46	7	27.00	—	34.00	H.C.
269	D. Smith	Kilmaurs Mains Mermaid	1080	Oct. 2, 1933	Sept. 15	34	17.4	17.2	16.6	51.2	2	4½	22.46	8	36.50	—	44.50	H.C.
280	A. Barclay	Compton Chic ...	1024	Jan. 27, 1934	Oct. 2	17	13.4	13.8	13.9	41.1	1	12	23.9	6	28.00	—	34.00	H.C.

BUTTER TESTS—AYRSHIRES—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
217	North Boig Bonny Betty	2 50 p.m.	3 15 p.m.	25	63	52	54
220	Birnieknowe Adelaide	4 0 ,,	4 40 ,,	40	63	52	56
221	Chapelhill Dora	2 40 ,,	3 5 ,,	25	63	52	55
224	Lyonstone Delight 3rd	2 25 ,,	3 10 ,,	45	63	52	53
225	Hall Iris	2 25 ,,	2 55 ,,	30	63	54	54
226	Langbarns Blossom 2nd	2 55 ,,	3 34 ,,	39	63	54	54
231	Lessnessock Edith 10th	2 18 ,,	2 40 ,,	22	63	52	54
234	Blackbyres Princess 3rd	4 15 ,,	4 30 ,,	15	63	52	54
236	Logan Mains Trim 3rd	3 15 ,,	4 0 ,,	45	63	53	54
237	Mains Margaret 3rd	3 50 ,,	4 10 ,,	20	63	53	54
238	Loaninghead Pansy 2nd	2 25 ,,	2 42 ,,	17	63	52	54
239	Relief Lady Grace 2nd	2 45 ,,	3 10 ,,	25	63	52	54
241	Compton Rosetta	3 0 ,,	3 20 ,,	20	63	52	55
244	West Green White Silk	3 15 ,,	3 35 ,,	20	63	52	54
246	Eshott Quicksilver	2 18 ,,	2 38 ,,	20	63	52	54
247	Harleyholm Bunty 10th	3 7 ,,	3 30 ,,	23	63	52	56
248	Lessnessock Lily	3 5 ,,	3 45 ,,	40	63	52	56
250	Loaninghead Lady Emblem	2 55 ,,	3 10 ,,	15	63	52	54
251	Auchengibbet Ena	3 5 ,,	4 20 ,,	75	63	52	57
252	Mains of Park Doll	3 43 ,,	4 10 ,,	27	63	52	56
253	Relief Julia	2 25 ,,	2 40 ,,	15	63	52	54
259	Mackay's Princess Royal 2nd	3 20 ,,	4 0 ,,	40	63	52	56
262	Howwell Gloria 2nd	4 53 ,,	5 35 ,,	42	63	52	55
264	Stannock White Queenie	3 35 ,,	4 10 ,,	35	63	52	58
265	Wilmcote Lily White	3 15 ,,	3 48 ,,	33	63	52	56
269	Kilmaurs Mains Mermaid	3 22 ,,	3 40 ,,	18	63	52	54
280	Compton Chic	5 50 ,,	6 45 ,,	55	62	52	56

BUTTER TESTS—GUERNSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
281	C. Holmes	Lynchmere Sally 3rd	1459	Sept. 27, 1925	Sept. 20	29	19.4	19.0	18.5	56.9	1	11½	33.08	8	27.50	—	35.50	H.C.
282	C. Holmes	Dairymaid of Riduna	1090	Jan. 17, 1930	Sept. 8	41	21.3	21.4	20.8	63.5	2	6¾	26.24	9	38.75	0.1	47.85	H.C.
283	E. H. Lane	Starless 4th of Ville Amphrey	1008	Aug. 11, 1930	Sept. 24	25	14.4	21.4	21.1	56.9	2	6½	23.71	9	38.50	—	47.50	H.C.
284	Capt. H. J. Pilbrow	Valence Lavender 2nd	1001	Aug. 24, 1927	Mar. 6	227	17.7	16.9	17.1	51.7	2	1¼	24.98	10	33.25	12.0	55.25	4th Prize
285	Capt. H. J. Pilbrow	Dormans Rowanberry 1st	1077	July 24, 1923	Sept. 25	24	15.4	14.9	16.1	46.4	1	8¾	29.94	10	24.75	—	34.75	H.C.
287	H. H. Scott	Rose of Goodnestone 15th	1094	June 24, 1931	Apr. 9	193	11.5	11.2	11.0	33.7	1	11½	19.59	10	27.50	12.0	49.50	5th Prize
288	Lady Seaton... ...	Bosahan Evelyn	1037	Apr. 10, 1930	Sept. 2	47	19.0	15.1	14.9	49.0	2	4¾	21.39	8	36.75	0.7	45.45	H.C.
289	Earl of Harewood ...	Harewood Excelsa	1226	July 11, 1932	Aug. 27	53	15.9	14.6	16.4	46.9	2	1¾	22.23	9	33.75	1.3	44.05	H.C.
290	C. Holmes	Rosie of Goodnestone 62nd	1053	Feb. 1, 1932	July 17	94	17.2	18.8	18.6	54.6	2	10½	20.60	9	42.50	5.4	56.90	3rd Prize
291	C. Holmes	Dairy Queen 3rd of Clover Top	1085	June 25, 1932	Feb. 2	259	15.6	13.2	14.8	43.6	2	4¼	19.29	10	36.25	12.0	58.25	2nd Prize
295	H. A. Y. Dyson ...	Primrose Poltimore of Payhay	1114	June 13, 1932	Sept. 16	33	21.6	22.8	22.5	66.9	2	5¼	28.84	9	37.25	—	46.25	H.C.
296	H. A. Y. Dyson ...	Valentine's Queen of Payhay	1024	Apr. 20, 1932	July 10	101	18.1	16.5	15.8	50.4	1	15¼	25.85	8	31.25	6.1	45.35	H.C.
297	Hon. A. E. Guinness	Bella's Cora 4th of Les Jetteries	992	Mar. 25, 1932	Sept. 5	44	23.1	21.8	22.9	67.8	3	8½	19.21	8	56.5	0.4	64.9	1st Prize
298	Hon. A. E. Guinness	Serena of Myrtle Place	978	Dec. 21, 1931	Aug. 30	50	14.5	15.4	16.0	45.9	2	0	22.95	8	32.00	1.0	41.00	H.C.
300	H. H. Scott	Hartwell Princess	1073	May 12, 1932	May 4	168	11.5	11.8	11.2	34.5	1	9	22.12	10	25.0	12.0	47.0	H.C.
302	C. Holmes	Bella of Clover Top	1040	Feb. 4, 1934	May 15	157	13.7	13.3	13.4	40.4	1	14½	21.26	7	30.50	11.7	49.20	Reserve
305	C. Norman	Spring Beauty of Trepieds	865	Mar. 15, 1934	Sept. 9	40	17.2	19.6	17.5	54.3	1	11	32.13	9	27.0	—	36.00	H.C.

BUTTER TESTS—GUERNSEYS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
281	Lynchmere Sally 3rd	3 26 p.m.	3 55 p.m.	29	63	52	56
282	Dairymaid of Riduna	3 25 ,,	4 7 ,,	42	63	52	56
283	Starless 4th of Ville Amphrey...	4 10 ,,	4 38 ,,	28	63	52	54
284	Valence Lavender 2nd	6 0 ,,	6 20 ,,	20	62	52	54
285	Dormans Rowanberry 1st	5 15 ,,	5 30 ,,	15	63	52	56
287	Rose of Goodnestone 15th	3 56 ,,	4 15 ,,	19	63	52	54
288	Bosahan Evelyn	3 56 ,,	4 15 ,,	19	63	52	54
289	Harewood Excelsa	4 5 ,,	4 30 ,,	25	63	52	54
290	Rosie of Goodnestone 62nd	4 10 ,,	4 40 ,,	30	63	52	54
291	Dairy Queen 3rd of Clover Top	3 48 ,,	4 25 ,,	37	63	52	56
295	Primrose Poltimore of Payhay	4 15 ,,	5 0 ,,	45	63	52	56
296	Valentine's Queen of Payhay	3 36 ,,	3 55 ,,	19	63	52	54
297	Bella's Cora 4th of Les Jetteries	3 40 ,,	4 8 ,,	28	63	52	54
298	Serena of Myrtle Place	3 10 ,,	3 28 ,,	18	63	52	54
300	Hartwell Princess	5 30 ,,	6 15 ,,	45	63	52	54
302	Bella of Clover Top	5 26 ,,	6 14 ,,	48	63	52	58
305	Spring Beauty of Trepieds	5 0 ,,	5 10 ,,	10	62	52	54

BUTTER TESTS—JERSEYS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf 1936.	No. of Days in Milk	Milk Yield Morn. lbs.	Milk Yield Aft. lbs.	Milk Yield Even. lbs.	Milk Yield Total lbs.	Butter Yield lbs ozs	Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
306	Sir John B. Lloyd ...	Dreaming Fleckie Lass	900	May 31, 1930	Aug. 17	63	16.8	22.6	20.5	59.9	3 3¼	18.78	10	51.25	2.3	63.55	3rd Prize
309	Ovaltine Dairy Farm	Queen's Dream Lady	937	Feb. 25, 1931	May 2	170	13.4	15.8	14.3	43.5	1 15½	22.08	9	31.50	12.0	52.50	H.C.
310	Ovaltine Dairy Farm	Playmate of Oaklands	885	May 17, 1929	Aug. 26	54	18.6	19.1	19.2	56.9	2 6¾	23.51	9	38.75	1.4	49.15	H.C.
312	Ovaltine Dairy Farm	Kafovite	954	June 20, 1931	Sept. 8	41	20.1	21.3	21.9	63.3	2 14¾	21.68	9	46.75	0.1	55.85	Reserve
314	Mrs. R. M. Foot ...	White Hill Happy May	896	Mar. 21, 1930	Aug. 18	62	22.4	21.1	20.1	63.6	2 6½	26.50	8	38.50	2.2	48.70	H.C.
315	Sir H. Mackintosh, Bt.	Wonderful Peggy	896	Mar. 25, 1931	Apr. 25	177	11.2	12.7	12.6	36.5	1 14	19.52	10	30.00	12.0	52.00	H.C.
316	G. Berry	May Day	876	May 1, 1928	Dec. 26	296	15.4	13.4	14.1	42.9	2 3¾	19.24	8	35.75	12.0	55.75	H.C.
319	W. E. Press	Wolvers Bess ...	1016	June 21, 1931	July 28	83	15.6	15.7	14.8	46.1	1 14½	24.26	10	30.50	4.3	44.80	H.C.
321	Mrs. G. J. Caddey ...	Cambraie Elfa 2nd	858	Nov. 10, 1930	June 5	136	11.8	14.4	14.3	40.5	2 13¼	14.36	10	45.25	9.6	64.85	2nd Prize
322	S. S. Lockwood ...	Normanby Chloe	890	Apr. 3, 1931	Apr. 23	179	17.4	17.8	15.7	50.9	2 11¼	18.85	10	43.25	12.0	65.25	1st Prize
324	J. W. McCallum ...	Pearcelands Eileen 10th	885	July 2, 1931	Mar. 29	204	16.6	16.5	16.0	49.1	2 6¾	20.29	8	38.75	12.0	58.75	5th Prize
326	A. S. Lockwood ...	Stonehurst Patrician's Sepia	836	Apr. 2, 1928	Aug. 5	75	17.0	16.8	16.1	49.9	2 7¾	20.04	10	39.75	3.5	53.25	H.C.
327	Miss G. M. Yule ...	April Vinnie ...	950	Apr. 1, 1930	June 27	114	13.6	13.1	12.9	39.6	2 7¼	16.16	9	39.25	7.4	55.65	H.C.
330	H. Stephen-Fox ...	Eastwood Parlour-maid	918	May 5, 1927	Aug. 8	72	15.7	16.1	15.6	47.4	2 8¾	18.59	7	40.75	3.2	50.95	H.C.
331	H. E. Mitchell ...	Lucette	858	May 7, 1930	Sept. 14	35	14.6	20.1	17.3	52.0	1 14¾	27.08	9	30.75	—	39.75	H.C.
333	M. F. North ...	Wotton Bella Donna	1000	June 25, 1930	Sept. 12	37	17.5	23.4	21.9	62.8	2 3¼	28.68	9	35.25	—	44.25	H.C.
334	Mrs. L. Corbett ...	Hockley May Belle	821	July 24, 1931	June 16	125	15.7	17.7	16.6	50.0	2 6	21.10	9	38.00	8.5	55.50	H.C.

BUTTER TESTS—JERSEYS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
335	Mrs. L. Corbett ...	Hockley Fern ...	834	July 15, 1931	May 13	159	8.9	11.1	11.1	31.1	1	14½	16.37	9	30.50	11.9	51.40	H.C.
336	Sir John B. Lloyd ...	Foxbury Dinard 3rd	958	May 18, 1932	Sept. 5	44	14.0	14.5	15.2	43.8	1	7¾	29.40	10	23.95	0.4	34.15	
337	Ovaltine Dairy Farm	Surville Scorcher's Present	955	Apr. 5, 1932	June 26	115	15.6	14.4	15.7	45.7	1	13½	24.84	10	29.50	7.5	47.00	H.C.
338	Ovaltine Dairy Farm	Moreland Tulip ...	804	Apr. 23, 1932	Sept. 1	48	11.9	15.9	15.2	43.0	1	10½	26.06	10	26.50	0.8	37.30	H.C.
345	Miss G. M. Yule ...	Wotton Belinda ...	1036	May 18, 1932	May 23	149	13.6	13.4	13.4	40.4	2	1½	19.33	9	33.50	10.9	53.40	H.C.
346	Mrs. H. Hawkins ...	Empire Mary ...	714	May 24, 1933	Aug. 13	67	19.8	17.4	17.4	54.6	3	2½	17.33	7	50.50	2.7	60.20	4th Prize
347	Mrs. H. Hawkins ...	Everdon Merry Maid	790	June 1, 1933	Aug. 26	54	14.5	14.1	14.3	42.9	1	9¼	27.32	8	25.25	1.4	34.65	H.C.
348	Mrs. H. I. Pitman ...	Bryne	1030	Feb. 17, 1932	Mar. 23	210	14.7	13.8	13.9	42.4	2	1¼	20.48	10	33.25	12.0	55.25	H.C.
349	M. F. North ...	Allangate Airiel ...	902	Sept. 15, 1933	Aug. 12	68	8.7	18.1	18.4	45.2	1	8¾	29.16	9	24.75	2.8	36.55	H.C.
350	Hon. Lady Mary Cook	Salsue	849	Sept. 5, 1931	Sept. 29	20	13.1	13.9	13.9	40.9	2	8	16.36	10	40.00	—	50.00	H.C.
352	W. A. White ...	Kingston Golden Blush	932	Mar. 1, 1933	Sept. 22	27	16.4	16.5	16.0	48.9	2	7	20.04	6	39.00	—	45.00	H.C.
355	Mrs. Hayes Sadler ...	Charlton Abbotts Sweetbread	874	May 27, 1933	June 23	118	15.9	16.9	15.8	48.6	2	4½	21.32	8	36.50	7.8	52.30	H.C.
356	R. G. Berkeley ...	Spetchley Emerald	856	Feb. 28, 1933	May 8	164	10.6	15.4	12.7	38.7	1	15	19.95	9	31.00	12.0	52.00	H.C.
360	Sir. H. Mackintosh, Bt.	Conyngham Friendship	920	Apr. 25, 1932	July 3	108	12.0	14.5	13.6	40.1	1	5½	29.93	9	21.50	6.8	37.30	H.C.
366	G. Berry	Starting Silver 3rd	837	Mar. 17, 1934	July 17	94	13.6	13.0	12.8	39.4	2	2	18.58	9	34.00	5.4	48.40	H.C.
368	W. E. Press	Wolvers Pamela ...	686	Aug. 9, 1934	Aug. 25	55	11.6	10.9	12.6	35.1	1	4¼	27.86	8	20.25	1 5	29 75	
370	A. S. Lockwood ...	Normanby King's Arum Lily	842	Mar. 12, 1934	Apr. 3	199	13.1	13.7	13.2	40.0	1	12	22.86	10	28.00	12.0	50.00	H.C.

BUTTER TESTS—JERSEYS—*Continued.*

No. in Catalogue	Exhibitor	Name of Animal	Live Weight	Date of Birth	Date of last Calf	No. of Days in Milk	Milk Yield				Butter Yield		Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
							Morn.	Aft.	Even.	Total								
			lbs.		1936.		lbs.	lbs.	lbs.	lbs.	lbs	ozs						
371	A. S. Lockwood ...	Normanby Victory Rosie's Pride	716	July 8, 1934	July 5	106	12.8	13.0	11.5	37.3	1	10¾	22.34	9	26.25	6.6	42.35	H.C.
381	Mrs. R. M. Foot ...	White Hill Dairy-like Deauvillaise	702	Aug. 12, 1934	Sept. 11	38	12.6	13.5	12.4	38.5	1	12	22.00	7	28.00	—	35.00	H.C.
383	Mrs. R. M. Foot ...	White Hill Dairy-like Beauty	754	Aug. 29, 1934	Sept. 2	47	11.2	11.4	11.1	33.7	1	8	22.47	7	24.00	0.7	31.70	H.C.

BUTTER TESTS—JERSEYS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
306	Dreamiing Fleckie Lass	6 25 p.m.	6 45 p.m.	20	62	52	52
309	Queen's Dream Lady	5 25 ,,	6 45 ,,	80	62	52	55
310	Playmate of Oaklands	6 5 ,,	6 20 ,,	15	63	52	54
312	Kafovite	7 25 ,,	7 45 ,,	20	62	52	54
314	White Hill Happy May	5 26 ,,	5 40 ,,	14	62	52	54
315	Wonderful Peggy	6 35 ,,	7 10 ,,	35	62	52	55
316	May Day	5 30 ,,	6 20 ,,	50	62	52	56
319	Wolvers Bess	4 20 ,,	5 5 ,,	45	63	52	57
321	Cambraie Elfa 2nd	5 15 ,,	5 35 ,,	20	62	52	54
322	Normanby Chloe	6 50 ,,	7 20 ,,	30	62	52	54
324	Pearcelands Eileen 10th	5 15 ,,	6 0 ,,	45	62	52	54
326	Stonehurst Patrician's Sepia	6 50 ,,	7 15 ,,	25	62	52	56
327	April Vinnie	5 30 ,,	5 50 ,,	20	62	52	54
330	Eastwood Parlourmaid	5 25 ,,	6 25 ,,	60	62	52	54
331	Lucette	5 30 ,,	5 40 ,,	10	62	52	54
333	Wotton Bella Donna	5 20 ,,	5 50 ,,	30	62	52	56
334	Hockley May Belle	5 20 ,,	6 12 ,,	52	62	52	52
335	Hockley Fern	7 16 ,,	7 50 ,,	34	62	52	55
336	Foxbury Dinard 3rd	5 28 ,,	5 50 ,,	32	62	52	54
337	Surville Scorcher's Present	5 32 ,,	6 10 ,,	38	62	52	56
338	Moreland Tulip	5 35 ,,	6 12 ,,	37	62	52	56
345	Wotton Belinda	5 45 ,,	6 10 ,,	25	62	52	54
346	Empire Mary	5 10 ,,	6 35 ,,	85	62	52	54
347	Everdon Merry Maid	5 47 ,,	6 20 ,,	33	62	52	54
348	Bryne	6 55 ,,	7 55 ,,	60	62	52	54
349	Allangate Airiel	6 0 ,,	6 42 ,,	42	62	52	54
350	Salsue	7 0 ,,	7 40 ,,	40	62	52	54
352	Kingston Golden Blush	7 15 ,,	7 53 ,,	38	62	52	54
355	Charlton Abbotts Sweetbread	6 10 ,,	6 50 ,,	40	62	52	54
356	Spetchley Emerald	6 25 ,,	6 55 ,,	30	62	52	58
360	Conyngham Friendship	6 10 ,,	6 35 ,,	25	62	52	54
366	Starting Silver 3rd	6 15 ,,	6 46 ,,	31	62	52	54
368	Wolvers Pamela	6 20 ,,	7 0 ,,	40	62	52	56

BUTTER TESTS—JERSEYS—*Continued.*

No. in Catalogue	Name of Animal	CHURNING—TIME AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
370	Normanby King's Arum Lily	7 5 p.m.	7 40 p.m.	35	62	52	55
371	Normanby Victory Rosie's Pride	7 5 ,,	7 50 ,,	45	62	52	56
381	White Hill Dairylike Deauvillaise	7 0 ,,	7 25 ,,	25	62	52	56
383	White Hill Dairylike Beauty	6 15 ,,	6 42 ,,	27	62	52	54

BUTTER TESTS—OTHER BREEDS.

No. in Catalogue	Exhibitor	Name of Animal	Live Weight lbs.	Date of Birth	Date of last Calf 1936.	No. of Days in Milk	Milk Yield Morn. lbs.	Milk Yield Aft. lbs.	Milk Yield Even. lbs.	Milk Yield Total lbs.	Butter Yield lbs ozs	Ratio, viz., lbs. Milk to lbs. Butter	No. of Points for Quality	No. of Points for Butter	No. of Points for Lactation	Total Number of Points	Awards
	WELSH BLACKS.																
212	Hon. Lady Shelley-Rolls	Grace	1333	Aug. 5, 1930	Sept. 10	39	23.9	24.8	21.7	70.4	2 9¼	27.39	7	41.25	—	48.25	Prize of £3
215	University College of North Wales	Snowdon Fuchsia	1118	July 27, 1930	Aug. 30	50	14.0	15.5	15.0	44.5	1 11½	25.87	9	27.50	1.0	37.50	Prize of £2
	KERRYS.																
385	H. E. Mitchell ...	Barrington Dame	1060	Mar. 26, 1933	July 10	101	8.0	8.1	7.0	23.1	Unch	urnab	le				
387	Miss H. G. B. Bowen-Colthurst	Summerhill Tricia 2nd	802	Mar. 31, 1932	Aug. 30	50	19.5	18.0	18.9	56.4	1 15	29.07	8	31.00	1.0	40.00	Prize of £3
	DEXTERS.																
389	Lady Loder	Grinstead Nightingale 3rd	686	Dec. 19, 1925	Apr. 29	173	12.5	12.9	12.4	37.8	1 10	23.33	8	26.00	12.0	46.00	Prize of £3
391	Comtesse Elizabeth de Pret Roose	Grinstead Dollie 2nd	700	May 18, 1929	Aug. 26	54	16.2	13.6	15.0	44.8	1 7¾	30.07	7	23.75	1.4	32.15	H.C.
392	Mrs. H. R. Pelly ...	The Witch ...	814	Jan. 25, 1927	May 15	157	9.5	8.7	7.9	26.10	1 3½	21.57	8	19.50	11.7	39.20	H.C.
393	Mrs. H. R. Pelly ...	Lindsays Minette	578	July 1, 1932	Sept. 19	30	9.5	9.9	9.9	29.3	1 0¼	29.01	8	16.25	—	24.25	H.C.

BUTTER TESTS—OTHER BREEDS—*Continued.*

No. in Cata-logue	Name of Animal	CHURNING AND TEMPERATURE					
		Time			Temperature °F.		
		Churning began	Churning finished	Duration of Churning	Dairy	Cream and Churn	Buttermilk when churning finished
				Minutes	Degrees	Degrees	Degrees
	WELSH BLACKS.						
212	Grace	2 23 p.m.	2 45 p.m.	22	63	52	54
215	Snowdon Fuchsia	3 15 ,,	3 48 ,,	33	63	52	54
	KERRY.						
387	Summerhill Tricia 2nd	6 40 p.m.	7 5 p.m.	25	62	52	54
	DEXTERS.						
389	Grinstead Nightingale 3rd	6 50 p.m.	7 25 p.m.	35	62	52	54
391	Grinstead Dollie 2nd	6 45 ,,	7 25 ,,	40	62	52	54
392	The Witch	6 35 ,,	7 15 ,,	40	62	55	54
393	Lindsays Minette	6 25 ,,	7 25 ,,	60	62	52	54

POULTRY SECTION—DAIRY SHOW, 1936

By W. J. Golding.

There is no denying the fact that the Dairy Show is the most popular event of the year in the poultry man's diary, and this year's show fully maintained, if not eclipsed, those successful shows that have previously been held; never before have we seen such crowds at the Agricultural Hall. It was at times difficult to move in the gallery. The entries in the poultry section were slightly down on the 1935 exhibition, but every foot of space was occupied by additional trade stands to display the wonderful assortment of ever increasing modern appliances.

The show opened in glorious sunshine which greatly assisted the Judges in their work, and the usual band of Stewards, in charge of Mr. J. H. Brown, worked assiduously in getting the awards placed upon the pens, and all was ready when the gallery was opened to the public a little before 1 p.m.

Judging for the Championship awards was entrusted to Messrs. J. Stephen Hicks, J. Meikle and W. Huntley. The "Isherwood" Champion Challenge Trophy and Gold Medal for the best bird in the show were awarded to Mr. E. P. Wollatt's Mammoth Bronze Turkey Stag, with Sir Duncan Watson's exhibition White Wyandotte Cockerel as Reserve. The "Morrison" Trophy for the best utility bird was secured by Sir Duncan Watson's White Wyandotte Cockerel, reserve being Lord Greenway's Rhode Island Red Pullet.

Table Poultry and Eggs.

In this section the market packs with 69 entries in the three classes provided made a most interesting and attractive display, and for the first time, the awards were made by score card to a maximum of 200 points. Messrs. Alexander & Angell are to be congratulated on the phenomenal success of their exhibits. Each of their three winning packs scored the full number of points. They also were awarded the second and third prizes in each class, thus making a clean sweep of the prizes in the 3 pack classes—really a wonderful achievement. The pair classes taken collectively were not up to the usual high standard obtaining at this show. With the exception here and there of outstanding exhibits, birds were shown too coarse and hard, and many of the exhibits lacked that quality of flesh that is so essential for the best London market. The Gold Medal, presented by the Worshipful Company of Poulters, was awarded to the cross-bred Game Cockerels exhibited by Mr. C. W. Witty, which were an extraordinarily well fleshed couple with A 1 quality.

In the pack classes more attention should be paid by exhibitors to the packing. A number of the boxes were not strongly enough made to withstand the railway journey; two of the cases were a very odd shape and one quite unsuitable for a standardised pack. Four also arrived nailed down and in consequence were penalised.

Eggs.—The classes for plates containing one dozen were not quite up to the standard expected at the Dairy Show. Several of the exhibits obtained low marks owing to the absence of that desired freshness.

The class for *Colonial Eggs* on the other hand was quite exceptional. The Judge, Mr. Carey, states he cannot speak too highly of their quality. He handled quite a number from each box and in testing them there was not a single egg that could be called doubtful; surely such a warning as this should be taken seriously to heart by our English exhibitors.

Live Poultry.

Dorkings as usual opened the schedule and were disappointing—the two classes for colours being cancelled, but the Silvers, although small in numbers, were quite up to the average for quality. Mr. A. J. Major won both classes and the Bronze Medal went to the cockerel.

Brahmas, with three classes, were much about their usual quality—too many of the exhibits were late hatched and not nearly in full feather.

Wyandottes, as a whole, made a very nice collection. Unfortunately the Gold and Silver Laced Cockerel class had to be cancelled, but the two separate classes for these colours, in pullets, contained some rare quality birds which were quite up to the average in this respect. Whites were much about the same in numbers and quality as last year; the winning cockerel, shown by Sir Duncan Watson, being awarded the medal for the best Wyandotte. Blacks with only eight entries in each class cannot be considered good. Partridges were no better in numbers, but the classes were brim full of quality; quite an outstanding pullet exhibited by Mr. J. Wharton headed her class with ease.

Sussex.—This breed started off with two extra good classes for Lights, and the general opinion was that the quality seen in these classes had never been excelled. The levelness of the exhibits was very marked. The winning cockerel exhibited by Mr. W. Borthwick deservedly won the Silver Medal for the best bird of the breed, the cockerel being very pure in top colour, with bold striped hackle, standing on good legs and feet and very well shown ; quite one of the best seen for some time. *Browns* were disappointing in numbers with the cockerel class cancelled. *Whites* were better, both in numbers and quality, and are certainly on the up grade. *Speckleds* again were short in numbers and are in too few breeders' hands. This is surprising, as not only are they good to look at, but they are one of the best breeds as a first class table fowl. Only one class for *any other colour* stood, the pullet class being cancelled.

Orpingtons.—As far as numbers are concerned the breed made a most disappointing display—61 entries in the seven classes (the Blue Cockerel class being cancelled) is but a very meagre total ; the quality on the other hand was quite up to standard. The type in *Blacks* is far too low for present day requirements. To hold its own this breed should penalise all surplus feathering and encourage birds being more off the ground. In the *Whites* there is room for improvement also in this direction, otherwise the birds exhibited were very good in quality. The *Buff* variety seems to be the only one that has come into line to make the breed what it was meant to be—the finest dual-purpose fowl in existence. The *Blues* are getting in too few breeders' hands. It is a great pity as they are as handsome as any of the other varieties and from a utility point of view, " par excellence." The Silver Medal for the best Orpington was awarded the Buff Cockerel exhibited by Mr. H. J. C. Cartwright, and well did he deserve this honour.

Croad Langshans were quite a representative display, with 25 entries in the two classes, and quality also was good ; this breed deserves popularity, being an extra good winter layer of a nice brown egg, and the flesh is nice and white on the table.

Plymouth Rocks were well handled by Mr. John Taylor, and the *Barred* Cockerel exhibited by Mr. H. Garlick was an outstanding winner in his class, and subsequently was awarded the Medal for the best Rock. *Buffs* were just an average lot in numbers, but it is some years since such level quality has been seen at the show. *A.O.C.* classes were small in numbers but quite worthy of mention regards merit.

Faverolles.—It was pleasing to see this old breed—full of merit as a first-class table fowl—forward in better numbers ; the Salmons, especially, were up well in this respect. The medal went to the Salmon Cockerel owned by Dr. T. W. E. Royden. A particularly nice Buff pullet, quite a new colour for the breed I believe, was exhibited by Mr. A. B. Memmory, and won the Any Other Colour class.

Barnevelders were most disappointing, three classes out of the six scheduled having to be cancelled ; this breed seems to be fast losing its popularity of a few years ago. The double laced cockerel, quite a nice exhibit, shown by Mr. F. J. Daffarn, annexed the medal.

Anconas contained two well-filled classes—an improvement both in numbers and quality on last year. This breed is deserving of support, being such an excellent layer and a rare forager. The medal was awarded to the cockerel exhibited by Mr. Griffith J. Davies, and this good Welsh fancier must be congratulated on his win.

Campines put up a good display—especially the Silvers. The winning cockerel exhibited by Mr. W. A. Slocock was one of the best seen for some years.

Bresse go from bad to worse, and with such a poor entry classes look like being deleted another year.

Silkies always a most attractive little fowl came up well in numbers and the medal winning pullet of Mr. Hough Watson's was quite an outstanding bird.

Frizzles and *Houdans*.—These old breeds are in too few breeders' hands, and cannot stand the strain of present day requirements for usefulness as well as beauty.

Minorcas.—It was most gratifying to see this good old breed turn out in improved numbers and appears to be regaining its one time popularity. Quality on the whole was well up to standard. The winning cockerel exhibited by Mr. W. Fisher deservedly won the Medal.

Andalusians were poor in numbers and breeders must support the classes better if they want the breed to be retained in the Schedule.

Leghorns.—A useful collection, but none too well filled classes. Browns took the lead for quality. *Whites* were also good, especially the medal winning pullet exhibited by Mr. C. Bell. *Blacks* were but moderate, both in numbers and quality. The *A.O.C.* classes contained all the old time popular colours and made a most attractive display.

British Jersey Giants.—The entries were down on last year, but quality was good, although some of the exhibits do not seem to carry the size that their name implies.

Rhode Island Reds were considerably down in numbers compared to the 1935 show, but, nevertheless, with nearly 70 entries in the two Single Comb Classes they made a brave show and a very level lot they were. Two good breeder judges in Captain C. H. Marshall and Mr. R. Moore handled them and their awards were well received. The winning cockerel exhibited by Mr. Frank H. Page was excellent in colour, grand type, with plenty of size, and finished off with a smart headpiece which made him an outstanding bird for the Silver Medal. Rosecombs were small classes and do not seem to hold their own in popularity.

Indian Game were moderate in numbers compared to what obtained a few years ago, but here again any deficiency in numbers was counterbalanced by the quality of the exhibits. A decided improvement has been made against the very low stance and excessive bone seen a few years ago, and from a fertility point of view this is all to the betterment of the breed. The Bronze Medal was awarded the cockerel exhibited by Mr. A. E. Jonas—a well balanced bird and shown very fit.

Jubilees were given separate classes this year but the response was by no means encouraging; although for quality the exhibits were quite good. *Old English Game* were not so strong in numbers as we have been accustomed to see at this show, but 69 in the four classes provided, still gives a very good average; again quality was not so uniform, yet many fit and nice exhibits were penned. The *Any Other Colour* pullet class was a particularly strong one and a very difficult job to sort, the birds in the money being just a matter of choice as to how they should be placed. The Silver Medal for best Old English Game went to the splendid Duckwing Cockerel shown by Captain J. S. Thompson.

Any Other Variety contained two well filled attractive classes, comprised of those breeds now not often seen. The winning Modern Langshan pullet, exhibited by Mr. R. Anthony, was awarded the Medal.

BREEDING PENS.

The mated trios always cause a deal of interest and prove very attractive, and the classes were well up to the mark in numbers, and quality was never better. Sir Duncan Watson's pens headed all three classes with White Wyandottes, Rhode Island Reds, and Brown Leghorns respectively—no mean achievement. His White Wyandottes were adjudged the best and secured "The Quill Challenge Trophy." It should be mentioned this magnificent perpetual cup was being competed for for the first time, and was subscribed for by the many friends of Mr. Joe Pettipher.

UTILITY POULTRY.

This section can always be depended upon to draw a large entry and well did it fulfil its reputation at this event—over 400 entries made quite a show in itself. The heavy breeds had to be judged as general purpose fowls, to combine laying and table properties, but on the other hand it is very questionable if the actual laying breeds are judged merely as layers. It is becoming more apparent each year that exhibits in this section must conform to breed standard requirements in no small degree, and, moreover, be in tip top condition to catch the Judges' eye. I am just wondering how long this duplication of classes—exhibition and utility—for such breeds as Wyandottes, Rhode Island Reds, Sussex, Plymouth Rocks, Leghorns, &c., will last. The same exhibitors, exhibiting in both sections, and the chief prizes mostly won by the same people makes it plain that this duplication of classes is not in the best interests from the Show Executive's point of view. I am confident that the time is coming—and not so far distant perhaps—when shows will go back to that classification that we were accustomed to see in pre-war days.

White Wyandottes mustered 49 in the two classes and a beautiful level lot they were. *Australorps* also being strong—21 cockerels and 25 pullets respectively. *Rhode Island Reds* were extra good with a total of 87 in the two classes. *Sussex* undoubtedly were the best classes for quality in the whole section. In the opinion of Mr. Grant, the judge, taken collectively, they were even better than the exhibition classes. *Plymouth Rocks* added for the first time, warranted inclusion by putting up quite a good display. *White Leghorns* are still decidedly popular, no less than 23 cockerels and 29 pullets facing the Judge. *Welsummers* came up well and if not quite the number seen last year, they were two well filled classes, and the remaining *any other Variety* classes came well up to average.

WATERFOWL, &C.

Ducks totalled 192 entries in the 23 classes provided—a slight decrease on last year, but they were well up to standard in quality. The *Aylesbury* classes were extra strong both in numbers and quality and it was here that the Silver Medal went to the drake, an exceptionally fine bird, exhibited by Mr. A. G. Weston.

Geese were but moderate in entries and the winning Emden gander shown by Mr. A. H. Fox-Brockbank, deservedly won the Medal; an exhibit very pure in his colour, immense size, free from keel and extra well shown.

Turkeys had a very good entry of 70 in seven classes and were well up to Dairy Show standard for quality. The *Blacks* were much better in colour and sheen than those seen last year. *Blues* were very uniform in colour. Some grand size *Bronzes* were exhibited, the winning stag of Mr. E. P. Woollatt's being the best seen for many years past, in fact it is doubtful if ever a better bird has been bred. This bird not only won the medal for the best turkey, but subsequently was awarded the Championship for the best bird in the whole show. *Buffs* were a nice entry with many birds of a sound level colour : a most attractive variety and of that medium size which the public want now-a-days.

BANTAMS.

Modern Game, although showing a slight decrease in entries, made a very good show. *Black Reds* as usual were the largest classes but many of the birds, although promising, were backward, and want more time before seeing them at their best. The Silver Medal after a hard fight went to the Black Red cock exhibited by Mr. Robert S. Hirst, a bird hard to fault.

Old English Game were again well filled classes and contained many excellent exhibits. The Judge was consistent in his awards and awarded the prizes to the fittest birds—this is as it should be, condition is everything in a game fowl. Mr. J. G. Blair was awarded the Silver Medal with his Blue pullet, an outstanding exhibit. *Variety Bantams* were quite an interesting lot, although some of the classes were not so strong numerically as we have seen here. *Rosecombs* came up badly in numbers and by the look of them the season has been late. *Sebrights* were better filled classes. *Frizzles* were two good classes also, and the *Wyandottes* made a brave show. *Rhode Island Reds* and *Indian Game* were both strong in numbers and quality, and the *Any Other Variety* classes were the best filled in the section, and must have given the Judge a deal of trouble to sort out. The Silver Medals for the best variety Bantam, Male and Female, were won respectively by Mr. Sutton Gill's Partridge Wyandotte cock, and Mr. J. H. Heys' Silver Sebright hen.

FINIS.

In conclusion, this report would be incomplete without a word of praise to our Secretary, Mr. Fred J. Bull, and his assistants for the very able way the arrangements were carried out. I am only too sorry to think there are not more poultry exhibitors members of the B.D.F.A.—the many advantages of being a member well repay the small annual amount of £1 membership ; a little persuasion from those exhibitors who are members to enrol fresh recruits I feel sure would do much good.

PIGEON SECTION—DAIRY SHOW, 1936

By W. S. Brocklehurst, J.P.

The Fifty-eighth Annual Show of the British Dairy Farmers' Association was held on October 20th, 21st, 22nd and 23rd, 1936, at the Agricultural Hall, Islington, London. Favoured with good weather, the light was again excellent for judging on the morning of Tuesday, the first day of the Show, and the work of getting the awards placed in the pens was finished in good time to allow the public to be admitted into the Galleries to see the results of the Judges' hard morning's work.

The galleries were crowded and the attendance during the whole of the Show was well above the average of previous years. Although the Poultry entries were considerably down on last year, the Pigeon entries were up by 47, and the quality of the exhibits continues to show much improvement. Competition is continually getting keener, making the Judges' work harder every year.

It was with regret that one noticed the absence of several well-known and respected names from the Catalogue this year through death. The Fancy can ill afford to lose such men and I regret to say that there are no young fanciers coming on to take their place and fill the depleting ranks of the Pigeon Fancy.

In the Pigeon Section this year there were 2,606 entries as compared with 2,539 in 1935, 2,471 in 1934, 2,611 in 1933, and 2,396 in 1932. Most of the Judges report that in their sections the quality was good throughout each class, and this view was also expressed by the many fanciers who visited the Show during the week.

The winners of the British Dairy Farmers' Association Trophies and Silver Medal were a wonderful lot of pigeons and were a great credit to their respective breeders and owners, who are to be congratulated on their achievements. Dr. J. A. Peebles, The Hut, Bridgnorth, Glam., kindly acted as Judge of these Trophies and after a hard and painstaking job, was able to select the winners from the wonderful lot of nominated birds of each breed selected for his final choice, which were to be the winners of the following much-coveted Association Trophies.

The Association Gold Medal for the best Pigeon in the Show, bred in the current year was awarded to Pen 2541, Class 259, Deekes Bros.' Blue Fantail, a beautiful pigeon and well shown.

The Jones Memorial Trophy for the best Adult Pigeon in the Show was awarded to Pen 234, Class 31, Messrs. W. S. & R. W. Brocklehurst's Adult Blue Modena cock—a pigeon of correct shape and type. Reserve went to Pen 1911, Class 185, Dr. J. L. Elliott's Jacobin hen, a grand feathered pigeon.

The Esquilant Challenge Trophy awarded to the best bird bred in the current year in Section No. 2 between the following breeds :—Turbits, Short-Faced Tumblers, English Owls, and African Owls, was awarded to Pen 2012, Class 198, Mr. M. C. J. Sparrow's African Owl, a grand headed pigeon. Reserve went to Pen 953, Class 97, Mr. W. R. Lobb's Turbit, also a pigeon of wonderful quality.

The Fulton Challenge Trophy awarded to the best bird bred in the current year in Section No. 5, between the following breeds :—Archangels, Nuns, Long-Faced Tumblers, Selfs, Long-Faced Tumblers, Balds and Beards, Muffed Tumblers, and Magpies, was awarded to Pen 985, Class 100, Mr. T. E. Dosser's Black hen, a grand pigeon and well shown in perfect condition Reserve went to Pen 1147, Class 114, Mr. G. J. Streeton's Black Self hen.

The Doctor C. H. Tattersall's Challenge Trophy awarded to the best bird bred in the current year between Dragoons and Modenas alternately, this year went to Dragoons, and was awarded to Pen 177, Class 22, Tattersall & Whitehead, a beautiful Silver hen —a most popular win. Everyone was delighted to know that the winner the first year was Mrs. C. H. Tattersall and Mr. H. S. Whitehead with a grand Silver Dragoon hen of the late Doctor's strain and of the colour he loved. They are to be heartily congratulated on their great win.

The N.P.A. Challenge Certificates this year numbered 60, as compared with 54 in 1935, 56 in 1934, and 47 in 1933.

The following is an account of different breeds exhibited at the 1936 Dairy Show. :—

Dragoons numbered 233 entries in 30 classes as compared with 252 entries in 29 classes last year—a decrease of 19. Mr. W. H. Inman had been chosen to judge the adults and yearlings, but through illness he was unable to be present, and Mr. H. J. Whitehead very kindly took his place. Mr. A. H. Dilworth judged the 1936 birds.

Mr. Whitehead reports that the classes of the adult pigeons were not too well filled, but the birds were well up to standard, there being some very good Blues, Red Chequers and Grizzles, an improvement in the Whites, but Reds and Yellows appeared very ordinary. This may be accounted for by the death of some of the large exhibitors. The adult Silver Dragoon classes were judged by Mr. A. Dilworth, who also judged the young Dragoon classes; the quality of this colour was very good. I have no report on the young classes from Mr. A. H. Dilworth to hand.

The George Cotton Challenge Cup for best cock bred in the current year was awarded to Pen 34, Class 5, Mr. W. Fenton's young Blue cock, which also took the Association's Silver Medal for best young cock.

The George Cotton Challenge Cup for the best hen bred in the current year was awarded to Pen 177, Class 22, Tattersall & Whitehead's Silver hen, which pigeon was also the winner of the Dr. Tattersall Trophy and the Association's Silver Medal best young hen.

The Hewitt Challenge Cup for the best young White Dragoon bred in the current year was awarded to Hollebone & Spencer's White hen, Pen 232, Class 30.

The Seven N.P.A. Certificates allotted to this Section were awarded as follows :—

		Class.	*Pen.*
Blues :	Mr. W. Proctor-Smith's adult hen ...	2	11
Blue Chequers :	Mr. W. L. Wilkinson's young cock ...	9	73
Red Chequers :	Mr. A. J. Smith's adult cock	11	91
Grizzle :	Mr. A. McDougall's young hen ...	18	143
Silver :	Mr. W. Proctor-Smith's adult hen ...	20	154
Red or Yellow :	Mr. F. Griffin's adult cock	23	178
White :	Messrs. Hollebone & Spencer's young hen	30	232

Modenas numbered 480 entries in 44 classes as compared with 541 entries in 43 classes last year—a decrease of 61. Mr. F. H. Cobb judged the Gazzis, Mr. G. V. Perkins, the Argents and Black Schietti, Mr. F. Jones all other Classes

In the Gazzi classes the judge reports a very high standard of type and quality throughout, and the birds were well shown. Mr. E. V. Perkins reports that he cannot remember having seen a better collection of birds and most of them were put down in excellent condition and he had great difficulty in some of the classes in making the awards, many fine specimens having to go unnoticed.

Mr. F. Jones reports that in his classes the birds exhibited were excellent both in quality and type, and showed a great improvement all round, especially in the young birds, except in the Young Reds and Yellows, which did not come up to the standard of the youngsters of the previous year.

The Association's Silver Medal for the best young Gazzi bred in the current year was awarded to Pen 259, Class 33, Messrs. W. S. &

R. W. Brocklehurst's young Blue cock. The Association Silver Medal for the best young Schietti bred in the current year was awarded to Pen 660, Class 70, Mr. J. L. Sear's Tie hen.

The eleven N.P.A. Certificates allotted to this section were awarded as follows :—

		Class.	*Pen.*
GAZZI :—			
Blues :	Messrs. W. S. & R. W. Brocklehurst's adult cock	31	234
Blacks :	Messrs. W. S. & R. W. Brocklehurst's adult cock	35	281
Bronze or Tie :	Messrs. W. S. & R. W. Brocklehurst's adult cock	39	298
A.O.C. :	Messrs. W. S. & R. W. Brocklehurst's young yellow cock	45	367
ARGENTS :—			
Blue :	Mr. A. E. Sharp's adult cock	47	391
Red or A.O.C. :	Mr. J. Sherratt's adult hen	52	437
SCHIETTI :—			
Blue :	Mr. J. L. Sear's adult cock	55	462
Black :	Messrs. W. S. & R. W. Brocklehurst's young cock	61	538
Red, Yellow or A.O.C. Self :	Messrs. W. S. & R. W. Brocklehurst's adult cock	63	564
Bronze or Tie :	Mr. J. L. Sears' adult cock	67	613
A.O.C. :	Mr. W. F. Holmes' young hen	74	709

Archangels numbered 51 in the usual four classes as compared with 54 entries last year ; a slight decrease, but a big drop since 1934 when there were 71 entries. Mr. R. Dodd judged this section and reported that the quality of the exhibits was better than in previous years. The quality and profuseness of lustre were very evident in the winning specimens and were all a grand lot.

The Bronze Medal of the Association for best bird bred in the current year was awarded to Mr. H. Leigh-Lye's young cock, Pen 743, Class 77, and the same bird took the N.P.A. Certificate.

Oriental Frills numbered 173 entries in 16 classes as compared with 159 entries in 14 classes—a welcome increase on last year's exhibits. No judge's reports are to hand.

The Oriental Frills Challenge Trophy for best bird was awarded to Mrs. M. M. Prince-Smith's Pen 800, Class 84, and the Association Silver Medal went to the same exhibit.

The three N.P.A. Certificates in this Section were awarded as follows :—

		Class.	*Pen.*
Oriental Turbit :	Mr. W. A. Smith's adult	81	778
Blondinette :	Mr. W. A. Smith's adult cock ...	83	794
Satinette :	Mr. H. N. Helliwell's adult cock ...	88	857

Mr. E. P. Morton judged this section.

Turbits numbered 27 entries in four classes as compared with 30 entries in the same number of classes last year. The judge, Mr. H. R. Champness, reports that the quality of the adult birds was very good, and in fact the exhibits were quite up to the average of previous years, particularly the hens, which were of excellent type. The young birds, with the exception of the winners in their classes, were not up to standard—neither were the entries very numerous.

The Association Bronze Medal for the best young Turbit bred in the current year was awarded to Mr. W. R. Lobb's Pen 953, Class 97, and the N.P.A. Certificate went to Mr. M. C. J. Sparrow's adult Turbit hen, Pen 948, Class 96.

Nuns numbered 72 entries in 7 classes as compared with 70 entries in 7 classes last year. Dr. J. S. Peebles very kindly acted as judge of this section at the last moment, owing to the death of Mr. A. E. Symes, and he gave great satisfaction with his awards. He reports that the exhibits were of really good quality and that the Red or Yellow classes showed much improvement, the Reds being slightly the better in type and colour. The greatest improvement was to be seen in the Blues which were much better than ever before. The Association's Bronze Medal for best young Nun was awarded to Mr. T. E. Dossier's Black hen, Pen 1147, Class 114. The N.P.A. Certificate for best Black and Dun was awarded to Mr. J. A. Walker's Black, Pen 972, Class 99, and the Certificate for best Any Other Colour was awarded to Dr. J. W. Cairn's Blue, Pen 1026, Class 105.

Short Faced Tumblers numbered 59 entries in 5 classes as compared with 67 entries in 6 classes last year. Mr. W. P. Woods judged this section and reports that the Short Faced entries came up well and the quality throughout was well maintained. Several of the young birds showed great promise of developing into grand adult pigeons. The Association's Bronze Medal for best young bird was awarded to Col. R. Burlton's Almond, Pen 1058, Class 107, and the N.P.A. Certificate went to Mr. G. A. Frith's Adult Almond, Pen 1051, Class 106.

Long Faced Tumblers numbered 213 entries in 20 classes as compared with 154 entries in 15 classes last year; a much better average with five additional classes. Mr. R. B. Fair judged the following colours: Blacks, Blue Bar and Whites, while Mr. W. G. Clarke took the other colours.

Mr. R. B. Fair reports a decided improvement in structure in the Blacks, heads being rounder and fuller all over; bodies more ball-like with the much desired curves in evidence. Length of tail and flight feathers are still excessive in nearly every case, thus spoiling the carriage and style of the exhibit. The Blue Bars variety has very much improved in colour, and most of the exhibits have bolder skulls and better eyes than hitherto, so all round progress can be reported. The position is not so satisfactory with the White variety, especially in the young classes where many birds were lacking in size of head and true beak setting. Feather is also exceedingly long, bearing in mind the size and width of body.

Mr. W. G. Clarke reports that the class for adult Reds was good and keenly contested. The young Red cock class was quite good ; winners were of wonderfully high order of excellency in shape and fullness of skull, with nice stout white beaks. The young Red hens were also a good lot. Yellows were not nearly as good as the Reds and seem to have gone back lately all round in heads, failing badly in width and fullness of face, also beak settings. The Blue Bars are becoming a very popular pigeon and have greatly improved the last year or two : their skulls are better, also beak setting. Colour seems to be the chief fault at present. In the Chequers and Grizzles class there were some birds of excellent merit, quality and type being good all round.

The Association's Silver Medal for the best pigeon bred in the current year was awarded to Mr. G. J. Hunter's Black hen, Pen 1147, Class 114.

The six N.P.A. Certificates were awarded as follows :—

		Class.	*Pen.*
Blacks :	Mr. W. E. Horsfall's adult cock	111	1100
Reds :	Mr. R. Stobo Tayler's adult	115	1160
Yellows :	Mr. G. E. Danks' adult	118	1187
White :	Mr. D. Aitkin's adult	121	1223
Blue Bar :	Mr. A. W. Dodd's young cock	125	1259
Chequer :	Mr. A. Rogers' adult	129	1300

Balds and Beards, etc., numbered 94 entries in 13 classes as compared with 106 entries in 11 classes last year—a worse average. The judge, Mr. R. H. Bellamy, reports that the quality was good and that a marked improvement in the Blacks was to be noticed. The Association's Silver Medal for best young bird was awarded to Mr. L. W. Goad's Young Black Baldhead cock, Pen 1330, Class 133. The three N.P.A. Certificates were awarded as follows :—

		Class.	*Pen.*
Black Baldhead :	Mr. L. W. Goad's young cock ...	133	1330
A.O.C. Baldhead :	Mr. A. E. Wells' cock	135	1347
Beard :	Mr. C. Sharp Mayes' cock	139	1376

Muffed Tumblers numbered 33 entries in 4 Classes as compared with 13 entries in 2 classes last year—a decided improvement. Dr. J. S. Peebles judges this section and reported a general improvement all round in type and quality, especially in the Reds and Yellow Selfs. The Blacks were not so far advanced in moult as the others. Generally footfeather has improved all round. The birds were shown clean and in good order, no birds being overstrained. The Association's Bronze Medal for best young bird was awarded to Mr. R. Milier, Pen 1406, Class 144, the N.P.A. Certificate going to the same bird.

Magpies numbered 60 entries in 7 classes as compared with 64 entries in 6 classes last year Mr. W. L. MacLaren judged this section and reports that the exhibits, though not numerous, were of high order of merit, and that the competition in most classes was very keen. The 1936 birds suffered in comparison with the adults, as many of the former were not clean through the moult. The Bronze Medal of the Association for the best bird bred in the current year was awarded to Mr. A. Dewhurst's Yellow hen, Pen 1466, Class 151.

The N.P.A. Certificate for the best Black or A.O.C. was awarded to Mr. R. B. Wright's Black hen, Pen 1450, Class 149, and the Certificate for best Red or Yellow was awarded to W. Machin & Sons' Yellow hen, Pen 1471, Class 151.

Variety Pigeons numbered 65 entries in 6 classes as compared with 100 entries in 9 classes last year. This year no less than six classes were cancelled, these being the two Fairy Swallows, 1 Monk, 1 Blazeface, I Starling or Swakian, 1 Silesian Swallow. Mr. A. J. Parker judged this section and reports all the exhibits were of good quality, high merit, and well shown. The Bronze Medal of the Association for the best bird bred in the current year went to Mrs. B. M. Hamilton's 3rd Prize clean legged Ice cock.

Racing Pigeons numbered 251 entries in 10 classes as compared with 217 entries in 8 classes last year. Mr. S. P. Griffiths and Mr. J. S. Hartridge divided this section between them, and found that the exhibits were of a very high standard, correct in shape, balance and feather, and practically every bird was shown in beautiful condition.

The Osman Memorial Trophy was awarded to Mr. G. E. Cloke's cock, Pen 1569, Class 167 and the Association Bronze Medal for the best Racing Pigeon of opposite sex to the winner of the Osman Cup, was awarded to Mr. C. R. Simms' adult hen, Pen 1723, Class 174.

Flying Tipplers numbered 30 entries in 2 classes as compared with 36 entries in 2 classes last year ; the exhibits were well shown, type and condition being well maintained throughout the two classes.

Flying Tumblers had one class provided for them this year for the first time, and it was rather surprising they did not number more than eight entries. Mr. W. H. Vodden was the judge of this breed.

Antwerp Smerles numbered 53 entries in 4 classes, exactly the same as last year. Mr. J. Durban judged this section and reports that the Yellow or Cream classes contained the best collection of birds of these colours ever seen in this country; the Yellows in particular are still ahead to quite a marked extent, especially in substance and lace frilling and size of body. The Bronze Medal of the Association for best young bird was awarded to Mr. W. J. Rayner's Pen 1854, Class 180, and the N.P.A. Certificate went to Mr. W. J. Rayner's Pen 1851, Class 180.

Jacobins numbered 34 entries in 4 classes as compared with 23 entries in three classes last year. The two adult classes were small, but that was to be expected at that time of the year. Mr. W. Hawgigo, taking Mr. H. A. Cobbe's place as judge owing to the latter's illness, reports that the quality in the young classes was well up to that obtaining in previous years. Many of the exhibits were still deep in moult. The Association Bronze Medal for best young bird and the N.P.A. Certificate were awarded to Dr. J. L. Elliott's young cock, Pen 1916, Class 186.

English Owls numbered 32 entries in 5 classes as compared with 35 in the same number of classes last year. Mr. J. Rose judged this section and reports that the quality was excellent and the competition in all classes very keen, the standard of the exhibits being very high. The Gatty Challenge Cup was awarded to Mr. W. Prince-Smith's Blue cock, Pen 1957, Class 192. The N.P.A. Certificate was awarded to Mr. W. Prince-Smith's Pen 1963, Class 193.

African Owls numbered 62 entries in 7 classes as compared with 53 entries in 5 classes last year. Mr. J. Rose judged this section also, and reported that here again he found that the quality of the exhibits was very high, and that the excellence of the exhibits in most classes was very even and little to choose between the leaders. The Gatty Challenge Cup for the best African Owl bred in the current year was awarded to Mr. C. J. Sparrow's Pen 2012, Class 198, the same exhibit also winning the Esquilant Trophy. The N.P.A. Certificate was awarded to Mr. C. J. Sparrow's Pen 1969, Class 194.

Antwerps numbered 22 entries in 4 classes as compared with 20 entries in the same number of classes last year. Mr. R. Arkwright judged this section and reports that type and quality were fully maintained in the young classes, a definite improvement in fine ceres, and eye colour all round.

The Association Bronze Medal was awarded to Mr. C. S. Woolland's young cock, Pen 2045, Class 203.

The N.P.A. Certificate was awarded to Mr. H. Drover's adult hen, Pen 2041, Class 202.

Show Homers numbered 101 entries in 8 classes as compared with 95 entries in the same number of classes last year. This variety is steadily increasing in numbers and getting back to the big entries seen several years ago at the Dairy Show. The exhibits were well up to the average, good in type and quality all round, and shown in good condition. The Silver Medal of the Association for the best young bird bred in the current year was awarded to Mr. H. Ashworth's young cock, Pen 2081 Class 207—the Lovell Trophy going to the same exhibit. The N.P.A. Certificate for best Chequer was awarded to Mr. H. Ashworth's cock, Pen 2081, Class 207, and Certificate for best Any Other Colour to Mr. J. W. Swan's cock, Pen 2116, Class 209.

This section was judged by Mr. R. Cocker.

Exhibition Homers numberes 85 entries in 6 classes as compared with 78 entries in the same number of classes last year ; this breed is increasing in numbers every year, and the judge, Mr. Geo. Lait, reports that the quality among the Chequers is much improved, Mealys only just up to standard, but quality all round good—perhaps an improvement on other years. Most of them were shown in the best of condition.

The Bronze Medal of the Association was awarded to Mr. C. J. Anson's Chequer cock, Pen 2166, Class 213.

Holle Croppers numbered 31 entries in 4 classes as compared with 30 entries in the same number of classes last year. Mr. A. Allum, who judged this section, reports that the quality was about average, but some of the exhibits were on the small side, while one or two were too large and failed to conform to the standard. The Bronze Medal of the Association was awarded to Mr. H. G. Bowler, Pen 2249, Class 220. The N.P.A. Certificate went to Mr. D. Parvin's exhibit, Pen 2244, Class 219.

Polish Lynx numbered 14 entries in the two classes as compared with 21 entries in the same number of classes last year, this being the second year that this variety has had a section to itself. Though the entries were down the birds were a good lot and well shown in splendid condition. The N.P.A. Certificate was awarded to Dr. G. A. Drake's hen, Pen 2278, Class 224. Mr. V. W. Thomas judged this section.

Runts numbered 16 entries in 4 classes as compared with 26 entries in the same number of classes last year. Mr. R. Arkwright judged this section and reported, that size, type and quality were fully maintained and of a very high standard and the entries were well shown. The Bronze Medal of the Association was awarded to Mr. J. L. Sears' Pen 2289, Class 226, and the two N.P.A. Certificates as follows :—one to Mr. J. L. Sears, Pen 2286, Class 228, and the other to Mr. J. L. Sears' entry in Class 227, Pen 2294—two wonderful table pigeons.

Carriers numbered 22 entries in 4 classes as compared with 46 entries in 8 classes last year ; this year two classes were cancelled. I am sorry to say that this variety seems to be on the decline and the number of breeders very few. The entries that were on view at the Dairy Show this year were good and the condition of exhibits excellent. Owing to the cancelling of classes the N.P.A. Certificate was not awarded. Mr. J. H. Smith judged this section.

Pouters numbered 14 entries in 2 classes as compared with 18 entries in the same number of classes last year. Mr. E. T. Angus judged this section and reports that the exhibits were better walkers than have been seen of late, several Whites shown were of splendid type, and the condition all round was good. The N.P.A. Certificate was awarded to Mr. D. J. Porter's hen, Pen 2329, Class 236.

Pigmy Pouters numbered 96 entries in 11 classes as compared with 83 entries in 9 classes last year. Mr. E. T. Angus and Mr. F. Jupe, who judged this section, report Blues up to second standard, Blacks have gone back in quality, Red and Yellows show slight improvement. Whites still hold the remarkable qualities that have obtained the last few years, and this colour reigns supreme for the fine body and waist with long limbs that the breeders have been aiming at for years. The Association Silver Medal for best young bird bred in the current year was awarded to Mr. B. O. Dickinson's Blue cock, Pen 2369, Class 240. The three N.P.A. Certificates were awarded as follows :—

		Class.	*Pen.*
Blue or Black :	Mr. B. O. Dickinson's blue cock ...	240	2369
White :	Mr. H. N. Leighton's hen	243	2395
A.O.C. :	Mr. H. N. Leighton's hen	247	2435

Norwich Croppers numbered 35 entries in 5 classes as compared with 48 entries in 4 classes last year—a decrease of 13 entries with one class less. They were well up to the Dairy Show standard and in fair condition as regards the moult. The Association's Bronze Medal for best young bird bred in the current year was awarded to Mr. H. Bushell, Pen 2475, Class 252, the same exhibit winning the N.P.A. Certificate. Mr. H. H. Ames judged this section.

Fantails numbered 89 entries in 10 classes as compared with 43 entries in 4 classes last year—a good increase on last year with an additional 6 classes. The judge, Mr. W. Bardell, reports that although the entries were well up in numbers, the exhibits on the whole were not up to the usual Dairy Show standard, with the exception of one or two birds. The Silver Medal of the Association for best Fantail bred in the current year was awarded to Deekes Bros.' Blue, Pen 2541, Class 259 ; the same exhibit winning the Association Gold Medal for the best young bird in the Show bred in the current year— a grand pigeon.

The three N.P.A. Certificates were awarded as follows :—

		Class.	*Pen.*
Whites :	Mr. H. Gordon's cock	255	2510
Black : Blue : Silver :	Messrs. Deekes Bros.' blue	259	2541
A.O.C. :	Mr. F. H. Jarvis	262	2564

Selling Classes numbered 39 entries in 4 classes as compared with 23 entries in 3 classes last year—an increase of 16 entries with an extra class—still very poor as compared with the big entries seen at the Dairy Shows in years past. Mr. R. Arkwright, who judged these classes, reports that there were many very good birds in the adult classes of good quality and very cheap ; the 1936 classes were not so good in quality nor type.

In concluding this report of the Pigeon Section of the 1936 Dairy Show, I wish again to add my sincere thanks to all members of my Committee and to the Stewards for their loyal support and hard work during the Show. Without their co-operation and help before the Show and during the evening of the Show, the work could not be carried through in the splendid way it always is, and the Show built up to the high position it now holds in the Pigeon Fancy. My best thanks are also due to Mr. F. J. Bull and his ever willing staff for all their assistance during the Show, to Mr. A. Wallis in the Pigeon Office, Mr. E. O'Dell as my Assistant during the Show and all my helpers.

I trust the exhibitors and the public are satisfied with all that is done for the birds' welfare and the arrangements which enable the public to view such a wonderful display of Fancy Pigeons as are staged at the British Dairy Farmers' Association Show each year.

AWARD OF PRIZES, DAIRY SHOW, 1936

TROPHIES AND SPECIAL PRIZES FOR DAIRY COWS AND HEIFERS IN MILK.

Open to all Breeds.

THE BRITISH DAIRY FARMERS' ASSOCIATION'S SUPREME INDIVIDUAL CHAMPIONSHIP CHALLENGE TROPHY, for the Cow gaining the greatest number of points on Inspection, in the Milking Trials (provided the quality of the milk analysed during the test does not fall below 3 per cent. fat, nor below 8.5 per cent. of non-fatty solids at any Milking), and in the Butter Test. Awarded to Chivers & Sons, Ltd., for Lincolnshire Red Shorthorn Cow " Histon Acacia 5th."

THE "BLEDISLOE" CHALLENGE TROPHY (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the best exhibit of good all-round Dairy Cows. Awarded to Ayrshires.

THE "MORRISON" CHALLENGE TROPHY (presented by the late MAJOR J. A. MORRISON, D.S.O.), for the Cow exhibited at three consecutive London Dairy Shows at which cattle were exhibited, gaining the greatest total number of points (at the three Shows) on Inspection, in the Milking Trials and Butter Tests. Awarded to George Wills for South Devon Cow " Milkmaid 3rd."

THE "BARHAM" CHALLENGE CUP (presented by MR. G. TITUS BARHAM), for the Cow gaining the greatest number of points in the Milking Trials. Awarded to Lord Rayleigh's Farms, for British Friesian Cow " Terling Contented 26th."

THE "SPENCER" CHALLENGE CUP (presented by the late MR. J. F. SPENCER. Coronation Year, 1902), for the cow gaining the greatest number of points on Inspection, in Milking Trials and Butter Tests. Awarded to Chivers & Sons, Ltd., for Lincolnshire Red Shorthorn Cow " Histon Acacia 5th."

THE "SHIRLEY" CHALLENGE CUP (presented by the late MR. J. L. SHIRLEY), for the Cow giving the greatest average daily weight of milk in the Milking Trials, such milk to contain not less than 3 per cent. fat and 8.5 per cent of non-fatty solids. Awarded to Stuart Paul, for Red Poll Cow " Kirton Sundial."

THE "BREEDERS" MILK CHALLENGE TROPHY (presented by MRS. R. M. FOOT) for the Cow or Heifer, entered in or eligible for the Herd Book of its Breed, obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight for milk with lactation points added. Animals eligible to compete for this Trophy must have been bred by the Owner, and must be stalled in the section for licensed cattle or have passed the tuberculin test on or after 1st August, 1936. Awarded to Mrs. R. M. Foot, for Jersey Cow " White Hill Happy May."

THE NATIONAL MILK CHALLENGE CUP, for the Cow or Heifer, entered or eligible for the Herd Book of its breed, obtaining in the Milking Trials the greatest number of points per 1,000 lbs. live weight for Milk with lactation points added. Awarded to Mrs. Henry Hawkins, for Jersey Cow " Empire Mary."

THE NATIONAL BUTTER CHALLENGE CUP, for the Cow or Heifer, entered or eligible for the Herd Book of its breed, obtaining in the Butter Tests the greatest number of points per 1,000 lbs. live weight for Butter with lactation points added. Awarded to Mrs. H. Hawkins for Jersey Cow " Empire Mary."

SPECIAL PRIZE OF £10 (offered by SIR ROBERT L. MOND, J.P.), for two animals, the Progeny of any particular Bull. Awarded to Cecil Ball, for " Oakham Dolce " and " Oakham Dazzle " (British Friesians).

Open only to Shorthorns.

THE " DESBOROUGH " CUP (presented by LORD DESBOROUGH, K.G., G.C.V.O.), for the Cow, exhibited in Classes 1 and 2, gaining the highest points in the Milking Trials. Awarded to John J. McMenemy, for " Parkhouse Strawberry 16th."

THE " CALVERT " CHALLENGE CUP (presented by the late HORATIO CALVERT), for the best Pedigreee Dairy Shorthorn Cow or Heifer upon Inspection only. Awarded to John Day, for " Huxham Duchess Rose 7th."

THE " MELVIN " PERPETUAL CHALLENGE CUP (presented by SIR MARTIN MELVIN, BART.), for the Dairy Shorthorn Cow or Heifer entered in Coates' Herd Book or in the Grading Register, gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Animals eligible to compete for this Cup must have been bred by the Owner. Awarded to John Day, for " Huxham Duchess Rose 7th "

THE " SHORTHORN " BUTTER CHALLENGE CUP (presented by MAJOR S. P. YATES), for the Shorthorn Cow or Heifer entered in Classes 1 to 5 complying with all conditions of the Butter Tests, also gaining the greatest number of points under the qualified headings. Awarded to C. J. Allday, for " Fothering Foggathorpe 2nd."

THE " THORNTON " PERPETUAL CHALLENGE CUP (presented by MESSRS. JOHN THORNTON & CO.), for the best Group of three Pedigree Dairy Shorthorn Cows and/or Heifers upon Inspection only. Awarded to J. Pierpont Morgan, for " Aldenham Barrington Lass 7th," " Aldenham Wild Queen 18th " and " Aldenham Barrington 11th."

EXTRA PRIZE OF £25, offered by the Shorthorn Society of the United Kingdom of Great Britain and Ireland, for the Dairy Shorthorn Cow or Heifer, pedigree or registered non-pedigree, gaining most points on Inspection, in the Milking Trials and Butter Tests. Awarded to John Day, for " Huxham Duchess Rose 7th"

EXTRA PRIZE of £10 (offered by the Shorthorn Society of the United Kingdom of Great Britain and Ireland) for the Cow exhibited in Class 4 and entered, or accepted for entry, in the Grading Registers of the Shorthorn Society, gaining most points on Inspection and in Milking Trials. Awarded to W. H. Nelson, for " Betty."

Open only to British Friesians.

THE " THORNTON " CHALLENGE CUP (presented by MESSRS. JOHN THORNTON & CO.), for the best group of three Pedigree British Friesian Cows and/or Heifers upon Inspection only. Awarded to Lord Rayleigh's Farms, for " Terling Breeze 34th," " Terling Contented 26th " and " Terling Lead 42nd."

Open only to South Devons.

A SILVER CHALLENGE CUP (presented by the SOUTH DEVON HERD BOOK SOCIETY), for the Pedigree South Devon Cow gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to Walter Hunt, for " Tracey's Milkmaid 5th."

Open only to Devons.

THE " BUSK " PERPETUAL CHALLENGE CUP (presented by Friends of the late WILLIAM GOULD BUSK, of Wraxhall, Dorset), for the Devon Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials, Butter Tests, and for the Milk Record for the 12 months ended 1st October, 1936. Not awarded.

Open only to Red Polls.

THE " THORNTON " PERPETUAL CHALLENGE CUP (presented by MESSRS. JOHN THORNTON & CO.), for the Red Poll Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to Earl of Radnor, for " Longford Loafer."

EXTRA DUAL-PURPOSE PRIZES (offered by the RED POLL CATTLE SOCIETY), for animals gaining the highest number of points on Inspection, in the Milking Trials and Butter Tests, awarded as follows :—Class 15. Three equal first (£3 16s. 8d. each) to Lord Cranworth, for " Grundisburgh Wander Duck," Mrs. H. D. Lewis, for " Eastwell Marshmallow " and Brooks (Mistley), Ltd., for " Mistley Amethyst." Fourth (£1 10s.) to Stuart Paul, for " Holton Rainbow 6th." Two equal fifth (10s. each) to Earl of Radnor, for " Longford Ruby 7th " and Miss M. H. Bouverie, for " Ranksborough Rosie." Class 16.—First (£5) to Earl of Radnor, for " Longford Loafer." Second (£3) to Stuart Paul, for " Kirton Sundial." Third (£2 10s.) to Sir Guy Hambling, Bart., for " Yoxford Maiden 3rd." Two equal fourth (£1 5s. each) to Stuart Paul, for " Kirton Oaken " and Lady Loder for " Brightwell Prue 4th."

Open only to Ayrshires.

THE " ROWALLAN " CHALLENGE CUP (presented by LORD ROWALLAN),for the Ayrshire Cow or Heifer registered or eligible for registration with a number in the Ayrshire Cattle Herd Book, gaining the grestest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to M. Hastings, for " North Boig Bonnie Betty."

Open only to Guernseys.

THE " STAGENHOE " CHALLENGE CUP (presented by MRS. W. BAILEY-HAWKINS), for the Guernsey Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. Awarded to Hon. A. E. Guinness, for " Bella's Cora 4th of Les Jetteries."

EXTRA PRIZES (offred by the ENGLISH GUERNSEY CATTLE SOCIETY) :—£10 for the best Guernsey Cow or Heifer on Inspection, and £10 for the Guernsey Cow or Heifer gaining highest points in the Milking Trials and Butter Test. Both awarded to Hon. A. E. Guinness, for " Bella's Cora 4th of Les Jetteries."

Open only to Jerseys.

THE " BLYTHWOOD " PERPETUAL CHALLENGE BOWL (presented by THE RT. HON. LORD BLYTH OF BLYTHWOOD), for the best Jersey Cow or Heifer bred in Great Britain or Ireland and entered or eligible for entry in the English Jersey Herd Book, on Inspection. Awarded to M. F. North, for " Allangate Airiel."

THE "BLYTHWOOD" PRODUCTION CHALLENGE BOWL (presented by the HEIRS OF THE LATE MR. J. H. SMITH-BARRY), for the Jesrey Cow or Heifer gaining the greatest number of points in the Milking Trials and in the Butter Tests, provided that the animal has been bred in Great Britain or Ireland. Awarded to J. W. McCallum, for "Pearcelands Eileen 10th."

THE "JERSEY" PERPETUAL PRODUCTION TROPHY (presented by DR. H. and MISS CORNER), for the Jersey Cow or Heifer gaining the greatest number of points in the Milking Trials and Butter Tests. Any animal whose milk contains less than 4 per cent. of butter-fat on the day's yield will be disqualified. Awarded to Sir John B. Lloyd, for "Dreaming Fleckie Lass."

THE "LOXWOOD" JUBILEE CHALLENGE CUP (presented by MR. M. F. NORTH) will be awarded to the Owner of the Jersey Cow or Heifer obtaining the highest number of points for Milk, Butter, Lactation, and Inspection. The average butter-fat to be not less than 4.5. Awarded to Sir John B. Lloyd, for "Dreaming Fleckie Lass."

GOLD, SILVER AND BRONZE MEDALS (presented by the ENGLISH JERSEY CATTLE SOCIETY) for the first three animals in the Butter Test, obtaining not less than 42 points. Awarded respectively to S. S. Lockwood for "Normanby Chloe"; Mrs. G. J. Caddey for "Cambraie Elfa 2nd"; and Sir John B. Lloyd for "Dreaming Fleckie Lass."

Open only to Kerries.

A SILVER CHALLENGE CUP (presented by the BRITISH KERRY CATTLE SOCIETY), for the Kerry Cow gaining the greatest number of points in the Milking Trials. Awarded to Miss H. G. B. Bowen-Colthurst for "Summerhill Tricia 2nd."

Open only to Dexters.

THE "LODER" PERPETUAL CHALLENGE CUP (presented by LADY LODER), for the Dexter Cow or Heifer gaining the most points on Inspection in the Milking Trials and Butter Tests. Awarded to Lady Loder for "Grinstead Nightingale 3rd."

Inspection and Milking Trials Prizes.

CLASS 1.—DAIRY SHORTHORN COW.—Entered in or accepted for Coates' Herd Book. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old during a lactation period of 45 weeks, recorded by a recognised Milk Recording Society. *First* Inspection (£8), and Shorthorn Society's Inspection Prize (£2), to John Crowe for "Fair Foggathorpe." *Second* Inspection (£4), Shorthorn Society's Inspection Prize (£1) and *Third* Milking Trial (£2) to J. W. G. Cronk for "Silverstream Ringlet 5th." *Third* Inspection (£2) and Shorthorn Society's Inspection Prize (£1) to W. J. Whitehand for "Heathersett Barrington 17th." *First* Milking Trial (£8) to A. Brittain & Son for "Steppingley Clover's Gift 4th." *Second* Milking Trial (£4) to F. Chapman for "Chevet Daygirl."

CLASS 2.—DAIRY SHORTHORN COW.—Entered in or accepted for Coates' Herd Book. Born after 1st August, 1931, and which has produced two or more calves. *First* Inspection (£8), Extra Inspection (£5), Shorthorn

Society's Inspection Prize (£2) and *Second* Milking Trial (£4) to John Day for "Huxham Duchess Rose 7th. *Second* Inspection (£4) and Shorthorn Society's Inspection Prize (£1) to Robert Raw for "Gift's Surprise." *Third* Inspection (£2) and Shorthorn Society's Inspection Prize (£1) to C. J. Allday for "Fothering Foggathorpe 2nd." *Fourth* Inspection (£1 10s.) and *Third* Milking Trial (£2) to J. P. Morgan for "Aldenham Wild Queen 18th." *First* Milking Trial (£8) to J. J. McMenemy for "Parkhouse Strawberry 16th." *Fourth* Milking Trial (£1 10s.) to Capt. A. S. Wills for "Thornby Foggathorpe 43rd."

CLASS 3.—DAIRY SHORTHORN HEIFER.—Entered in or eligible for Coates' Herd Book. Born on or after 1st August, 1933, and having produced only one calf. *First* Inspection (£8), Shorthorn Society's Inspection Prize (£2) and *Third* Milking Trial (£2) to Capt. A. S. Wills for "Thornby Barrington Duchess 9th." *Second* Inspection (£4), Shorthorn Society's Inspection Prize (£1) and *Second* Milking Trial (£4) to C. J. Allday for "Fothering Blush Rose." *Third* Inspection (£2) and Shorthorn Society's Inspection Prize (£1) to W. H. Vigus for "Revels Gwenda." *First* Milking Trial (£8) to W. H. Vigus for "Revels Princess Pearl."

CLASS 4.—DAIRY SHORTHORN COW.—Not eligible for Classes 1 or 2. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old during a lactation period of 45 weeks, recorded by a recognised Milk Recording Society. *First* Inspection (£8), Shorthorn Society's Inspection Prize (£2) and *Third* Milking Trial (£2) to W. H. Nelson for "Betty." *Second* Inspection (£4), Shorthorn Society's Inspection Prize (£1) and *Second* Milking Trial (£4) to H. Brazier for "Melody." *Third* Inspection (£2), Extra Inspection (£5), Shorthorn Society's Inspection Prize (£1) and *First* Milking Trial (£8) to J. W. Shirley for "Lodge Snowdrop."

CLASS 5.—DAIRY SHORTHORN HEIFER.—Not showing more than four broad teeth and having produced only one calf. Not eligible for Class 3. *First* Inspection (£8) and Shorthorn Society's Inspection Prize (£2) to H. Brazier for "Fill Pail." *Second* Inspection (£4), Shorthorn Society's Inspection Prize (£1) and *First* Milking Trial (£8) to W. H. Nelson for "Mary." *Third* Inspection (£2), Shorthorn Society's Inspection Prize (£1) and *Third* Milking Trial (£2) to J. & H. Jackson for "June." *Second* Milking Trial (£4) to J. & H. Jackson for "Poppy."

CLASS 6.—LINCOLNSHIRE RED SHORTHORN COW.—Entered in or accepted for the Herd Book. Cows entered in this Class must have yielded a maximum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), Extra Inspection (£5), *First* Milking Trial (£8) and Lincolnshire Red Shorthorn Association's Prizes for *First* Inspection and *First* Milking Trials (£12) to Chivers & Sons, Ltd., for "Histon Acacia 5th." *Second* Inspection (£4) and Lincolnshire Red Shorthorn Association's *Second* Inspection Prize (£4) to John Evens & Son for "Burton Red Rose 10th." *Third* Inspection (£2), *Second* Milking Trial (£4) and Lincolnshire Red Shorthorn Association's Prizes for *Third* Inspection and *Second* Milking (£5 10s.) to John Evens & Son for "Burton Venetia 2nd." *Third* Milking Trial (£2) and Lincolnshire Red Shorthorn Association's *Third* Milking Trial Prize (£1 10s.) to Chivers & Sons, Ltd., for "Histon Dairymaid 65th."

CLASS 7.—LINCOLNSHIRE RED SHORTHORN HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1933, and having produced only one calf. *First* Inspection (£8) and *Second* Milking Trial

(£4) to John Evens & Son for "Burton Young Cherry 26th." *Second* Inspection (£4) and *First* Milking Trial (£8) to F. R. Wood for "Bendish Nancy 34th." *Third* Inspection (£2) and *Third* Milking Trial (£2) to F. Sainsbury for "Wratting Sensation."

CLASS 8.—BRITISH FRIESIAN COW.—Entered in or accepted for the Herd Book or the Supplementary Register. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8) and Extra Inspection (5) to Lord Rayleigh's Farms for "Terling Breeze 34th." *Second* Inspection (£4), *Second* Milking Trial (£4) and British Friesian Cattle Society's *Second* Milking Trial Prize (£5) to Strutt & Parker (Farms), Ltd., for "Lavenham Annie 29th." *Third* Inspection (£2) to W. Twentyman for "Winchester Danae." *First* Milking Trial (£8) and British Friesian Cattle Society's *First* Milking Trial Prize (£8) to Lord Rayleigh's Farms for "Terling Contented 26th." *Third* Milking Trial (£2) and British Friesian Cattle Society's *Third* Milking Trial Prize (£2) to Strutt & Parker (Farms) Ltd., for "Lavenham Chancery 3rd."

CLASS 9.—BRITISH FRIESIAN COW.—Entered in or accepted for the Herd Book or the Supplementary Register. Born after 1st August, 1931, and previous to 1st August, 1933. *First* Inspection (£8), *Second* Milking Trial (£4) and British Friesian Cattle Society's *Second* Milking Trial Prize (£5) to H. C. Alexander for "Kenton Blossom." *Second* Inspection (£4), *Third* Milking Trial (£2) and British Friesian Cattle Society's *Third* Milking Trial Prize (£2) to Lord Rayleigh's Farms for "Terling Lead 42nd." *Third* Inspection (£2), *First* Milking Trial (£8) and British Friesian Cattle Society's *First* Milking Trial Prize (£8) to F. W. Gilbert for "Saundby Wild Rose 2nd."

CLASS 10.—BRITISH FRIESIAN HEIFER.—Entered in or eligible for the Herd Book or the Supplementary Register. Born on or after 1st August, 1933, and having produced only one calf. *First* Inspection (£8) and *First* Milking Trial (£8) to Hodge Bros. for "Fintloch Ida." *Second* Inspection (£4) to Hodge Bros. for "Fintloch Holly." *Third* Inspection (£2) to W. Curtis & Son for "Barwyke Eclipse." *Second* Milking Trial (£4) to Cecil Ball for "Oakham Dazzle." *Third* Milking Trial (£2) to Mrs. F. Downing for "Wintersell Dainty 8th."

CLASS 11.—SOUTH DEVON COW.—Entered in or accepted for the Herd Book. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 7,500 lbs. at 5 years old or over, or 5,600 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8) and *First* Milking Trial (£8) to Walter Hunt for "Tracey's Milkmaid 5th." *Second* Inspection (£4) and *Third* Milking Trial (£2) to Dartington Hall, Ltd., for "Dartington Lassie." *Third* Inspection (£2) and *Second* Milking Trial (£4) to George Wills for "Milkmaid 3rd."

CLASS 12.—SOUTH DEVON COW.—Entered in or accepted for the Herd Book. Born after 1st August, 1931, and previous to 1st August, 1933. *First* Inspection (£8) and *Extra* Inspection (£5) to Dartington Hall, Ltd., for "Dartington Hall Nervous Alice 2nd." *Second* Inspection (£4) to W. E. Dommett for "C.P. Kitty 6th." *Third* Inspection (£2) and *First* Milking Trial (£8) to Dartington Hall, Ltd., for "Dartington Dairymaid." *Second* Milking Trial (£4) to George Wills for "Rydon Milkmaid 7th." *Third*

Milking Trial (£2) to Dartington Hall, Ltd., for "Dartington Cowslip 1st."

CLASS 13.—SOUTH DEVON HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1933, and having produced only one calf. *First* Inspection (£8) and *Second* Milking Trial (£4) to George Wills for "Rydon Milkmaid 9th." *Second* Inspection (£4) and *Third* Milking Trial (£2) to Dartington Hall, Ltd., for "Dartington Primula." *Third* Inspection (£2) to George Wills for "Rydon Pink 20th." *First* Milking Trial (£8) to John T. Dennis for "Winsor Alma 2nd."

CLASS 14.—DEVON COW.—Entered in or accepted for the Herd Book or the Supplementary Register. Cows entered in this Class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year-of a recognised Milk Recording Society. No entry.

CLASS 15.—RED POLL COW.—Entered in or accepted for the Herd Book. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), *Extra* Inspection (£5) and *First* Milking Trial (£8) to Col. H. E. Hambro for "Morston Girl 14th." *Second* Inspection (£4) and *Fourth* Milking Trial (£1 10s.) to Mrs. H. D. Lewis for "Eastwell Marshmallow." *Third* Inspection (£2) and *Third* Milking Trial (£2) to Brooks (Mistley), Ltd., for "Mistley Amethyst." *Fourth* Inspection (£1 10s.) to Lord Cranworth for "Grundisburgh Wander Duck." *Second* Milking Trial (£4) to Stuart Paul for "Holton Rainbow 6th."

CLASS 16.—RED POLL COW.—Entered in or accepted for the Herd Book. Born after 1st August, 1931, and previous to 1st August, 1933. *First* Inspection (£8) to Mrs. M. L. Griffith for "Diss Mermaid." *Second* Inspection (£4) to Lady Loder for "Leonardslee Mulberry." *Third* Inspection (£2) to Stuart Paul for "Kirton Oaken." *First* Milking Trial (£8) to Stuart Paul for "Kirton Sundial." *Second* Milking Trial (£4) to Sir Guy Hambling, Bart., for "Yoxford Maiden 3rd." *Third* Milking Trial (£2) to Earl of Radnor for "Longford Loafer."

CLASS 17.—RED POLL HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1933, and having produced only one calf. *First* Inspection (£8) to Stuart Paul, for "Kirton Ruralist." *Second* Inspection (£4) and *Second* Milking Trial (£4) to Stuart Paul for "Kirton Copyist." *Third* Inspection (£2) to Brooks (Mistley), Ltd. for "Mistley Minstrel." *First* Milking Trial (£8) to Capt. F. J. O. Montagu for "Shortgrove Phoebe." *Third* Milking Trial (£2) to W. Scrimgeour for "Wissett Meg."

CLASS 18.—WELSH BLACK COW.—Entered in or accepted for the Herd Book. Cows entered in this Class must have yielded a minimum of 7,000 lbs. at five years old or over, or 5,250 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), *Extra* Inspection (£5) and *First* Milking Trial (£8) to Hon. Lady Shelly-Rolls for "Grace." *Second* Inspection (£4), *Second* Milking Trial (£4) and Welsh Black Society's Inspection and Milking Trial Prizes (£3) to University College of North Wales for "Snowdon Fuchsia."

Class 19.—Ayrshire Cow, entered in the Herd Book or Appendices. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), *Second* Milking Trial (£4) and Ayrshire Cattle Herd Book Society's *First* Inspection and *Second* Milking Trial Prizes (£5) to D. Mackay, for "Blackbyres Princess 3rd." *Second* Inspection (£4), *Fourth* Milking Trial (£1 10s.) and Ayrshire Cattle Herd Book Society's *Second* Inspection and *Fourth* Milking Trial Prizes (£3) to M. Hastings for "North Boig Bonnie Betty." *Third* Inspection (£2), *Extra* Inspection (£5) and Ayrshire Cattle Herd Book Society's *Third* Inspection Prize (£2) to James Howie for "Mains Margaret 3rd." *Fourth* Inspection (£1 10s.) and Ayrshire Cattle Herd Book Society's *Fourth* Inspection Prize (£2) to Mrs. R. M. Foot for "Langbarns Blossom 2nd." *Fifth* Inspection (£1), *First* Milking Trial (£8) and Ayrshire Cattle Herd Book Society's *Fifth* Inspection and *First* Milking Trial Prizes (£5) to John Baird for "Birnieknowe Adelaide." *Third* Milking Trial (£2) and Ayrshire Cattle Herd Book Society's Milking Trial Prize (£2) to J. & J. McIntyre for "Logan Mains Trim 3rd." *Fifth* Milking Trial (£1) and Ayrshire Cattle Herd Book Society's *Fifth* Milking Trial Prize (£1)to James Turner, for "Loaninghead Pansy 2nd."

Class 20.—Ayrshire Cow.—Entered in the Herd Book or Appendices. Born after 1st August, 1931, and previous to 1st August, 1933. *First* Inspection (£8) to James G. Mackie for "Relief Julia." *Second* Inspection (£4) and *Second* Milking Trial (£4) to James Turner for "Loaninghead Lady Emblem." *Third* Inspection (£2) and *First* Milking Trial (£8) to Eshott Pedigree Stock Farms for "Eshott Quicksilver." *Third* Milking Trial (£2) to D. Mackay for "Mackay's Princess Royal 2nd."

Class 21.—Ayrshire Heifer.—Registered or eligible for registration in the Herd Book or Appendices. Born on or after 1st August, 1933, and having produced only one calf. *First* Inspection (£8) to G. A. McIlwraith for "Stannock White Queenie." *Second* Inspection (£4) to E. B. Caldecott for "Caigton Swan." *Third* Inspection (£2) to David Smith for "Kilmaurs Mains Mermaid." *First* Milking Trial (£8) to A. Murray for "Kilfillan Stella." *Second* Milking Trial (£4) to W. & J. Logan for "Burton Marigold." *Third* Milking Trial (£2) to David Clark for "Isles Nora 2nd."

Class 22.—Guernsey Cow.—Entered in or accepted for the Herd Book. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8) and *Second* Milking Trial (£4) to Capt. H. J. Pilbrow for "Valence Lavender 2nd." *Second* Inspection (£4) to Carl Holmes for "Lynchmere Sally 3rd." *Third* Inspection (£2) to Lady Seaton for "Bosahan Evelyn." *First* Milking Trial (£8) to Carl Holmes for "Dairymaid of Riduna." *Third* Milking Trial (£2) to E. H. Lane for "Starless 4th of Ville Amphrey."

Class 23.—Guernsey Cow.—Entered in or accepted for the Herd Book. Born after 1st August, 1931, and which has produced two or more calves. *First* Inspection (£8), *Extra* Inspection (£5) and *First* Milking Trial (£8) to Hon. A. E. Guinness for "Bella's Cora 4th of Les Jetteries." *Second* Inspection (£4) and *Second* Milking Trial (£4) to H. A. Y. Dyson for "Primrose Poltimore of Payhay." *Third* Inspection (£2) and *Third* Milking Trial (£2) to Carl Holmes for "Rosey of Goodnestone 62nd."

CLASS 24.—GUERNSEY HEIFER.—Entered in or eligible for the Herd Book, and which has produced her first and only calf at or under the age of two years and nine months. *First* Inspection (£8) and *First* Milking Trial (£8) to C. Norman for "Spring Beauty of Trepieds." *Second* Inspection (£4) and *Second* Milking Trial (£4) to Carl Holmes for "Bella of Clover Top." *Third* Inspection (£2) and *Third* Milking Trial (£2) to Hon. A. E. Guinness for "Cyrene's Hope 3rd of the Rouvets."

CLASS 25.—JERSEY COW.—English or Island bred, entered in or accepted for the Herd Book. Born on or previous to 1st August, 1931. Cows entered in this Class must have yielded a minimum of 8,000 lbs. at five years old or over, or 6,000 lbs. at under five years old, either during a lactation period of 45 weeks, or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), *Extra* Inspection (£5) and English Jersey Cattle Society's *First* Inspection Prize (£2) to Ovaltine Dairy Farm for "Queen's Dream Lady." *Second* Inspection (£4), *First* Milking Trial (£8) and English Jersey Cattle Society's *Second* Inspection Prize (£1) to Sir John B. Lloyd for "Dreaming Fleckie Lass." *Third* Inspection (£2), *Fifth* Milking Trial (£1) and English Jersey Cattle Society's *Third* Inspection Prize (£1) to Ovaltine Dairy Farm for "Playmate of Oaklands." *Fourth* Inspection (£1 10s.) and English Jersey Cattle Society's *Fourth* Inspection Prize (10s.) to S. S. Lockwood for "Normanby Chloe." *Fifth* Inspection (£1) to M. F. North for "Wotton Bella Donna." *Second* Milking Trial (£4) to Ovaltine Dairy Farm for "Kafovite." *Third* Milking Trial (£2) to Mrs. R. M. Foot for "White Hill Happy May." *Fourth* Milking Trial (£1 10s.) to J. W. McCallum for "Pearcelands Eileen 10th."

CLASS 26.—JERSEY COW.—English or Island bred, entered in or accepted for the Herd Book. Born after 1st August, 1931, and which has produced two or more calves. *First* Inspection (£8) and English Jersey Cattle Society's *First* Inspection Prize (£2) to Ovaltine Dairy Farm for "Moreland Tulip." *Second* Inspection (£4), *First* Milking Trial (£8) and English Jersey Cattle Society's *Second* Inspection Prize (£1) to Mrs. Henry Hawkins for "Empire Mary." *Third* Inspection (£2) and English Jersey Cattle Society's *Third* Inspection Prize (£1) to Ovaltine Dairy Farm for "Surville Scorcher's Present." *Fourth* Inspection (£1 10s.) and English Jersey Cattle Society's *Fourth* Inspection Prize (10s.) to M. F. North for "Allangate Airiel." *Second* Milking Trial (£4) to Miss G. M. Yule for "Wotton Belinda." *Third* Milking Trial (£2) to W. A. White for "Kingston Golden Blush." *Fourth* Milking Trial (£1 10s.) to Mrs. Hayes Sadler for "Charlton Abbott's Sweetbread."

CLASS 27.—JERSEY HEIFER.—English or Island bred, entered in or eligible for the Herd Book, and which has produced her first and only calf at or under the age of 2½ years. *First* Inspection (£8), *Third* Milking Trial (£2) and English Jersey Cattle Society's *First* Inspection Prize (£2) to M. F. North for "Light Bonnie." *Second* Inspection (£4) and English Jersey Cattle Society's *Second* Inspection Prize (£1) to Miss G. M. Yule for "The Poplars Pride Girl." *Third* Inspection (£2) and English Jersey Cattle Society's *Third* Inspection Prize (£1) to Ovaltine Dairy Farm for "Ovaltine Orchis." *First* Milking Trial (£8) to Grosvenor Berry for "Starting Silver 3rd." *Second* Milking Trial (£4) to A. S. Lockwood for "Normanby King's Arum Lily."

CLASS 28.—KERRY COW.—Entered in or accepted for the Herd Book. Cows entered in this class must have yielded a minimum of 6,500 lbs. at five years old or over, or 4,800 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), *Extra* Inspection (£5), *Second* Milking Trial (£4) and British Kerry Cattle Society's *First* Inspection Prize (£2) to Lt.-Col. J. A. Innes for "Ard Caein Doe." *Second* Inspection

(£4) and British Kerry Cattle Society's *Second* Inspection Prize (£1) to H. E. Mitchell for "Valencia Juno 2nd." *Third* Inspection (£2) and *First* Milking Trial (£8) to Miss H. G. B. Bowen-Colthurst for "Summerhill Tricia 2nd."

CLASS 29.—KERRY HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1933, and having produced only one calf.—Cancelled.

CLASS 30.—DEXTER COW.—Entered in or accepted for the Herd Book. Cows entered in this class must have yielded a minimum of 5,000 lbs. at five years old or over, or 3,750 lbs. at under five years old, either during a lactation period of 45 weeks or for any one completed year of a recognised Milk Recording Society. *First* Inspection (£8), *Extra* Inspection (£5), *Second* Milking Trial (£4) and Dexter Cattle Society's *First* Inspection Prize (£2) to Comtesse Elizabeth de Pret Roose for "Grinstead Dollie 2nd." *Second* Inspection (£4) and Dexter Cattle Society's *Second* Inspection Prize (£1) to Mrs. H. R. Pelly for "Lyndsays Minette." *Third* Inspection (£2) and *Third* Milking Trial (£2) to Mrs. H. R. Pelly for "The Witch." *First* Milking Trial (£8) to Lady Loder for "Grinstead Nightingale 3rd."

CLASS 31.—DEXTER HEIFER.—Entered in or eligible for the Herd Book. Born on or after 1st August, 1933, and having produced only one calf.—Cancelled.

BUTTER TESTS.

SHORTHORNS, entered in Classes 1 to 7.—*First* (£8 and Silver Medal) to Chivers & Sons, Ltd., for "Histon Acacia 5th." *Second* (£4 and Bronze Medal) to John Day for "Huxham Duchess Rose 7th." *Third* (£2) to C. J. Allday for "Fothering Foggathorpe 2nd." *Fourth* (£1 10s.) to J. J. McMenemy for "Parkhouse Strawberry 16th." *Fifth* (£1) to John Evens & Son for "Burton Red Rose 10th."

BRITISH FRIESIANS, entered in Classes 8 to 10.—*First* (£8 and Silver Medal) to Cecil Ball for "Oakham Dolce." *Second* (£4 and Bronze Medal) to Lord Rayleigh's Farms for "Terling Contented 26th." *Third* (£2) to H. C. Alexander for "Kenton Blossom." *Fourth* (£1 10s.) to Cecil Ball for "Oakham Dainty." *Fifth* (£1) to W. Twentyman for "Winchester Danae."

SOUTH DEVONS, entered in Classes 11 to 13.—*First* (£8 and Silver Medal) to George Wills for "Milkmaid 3rd." *Second* (£4 and Bronze Medal) to Dartington Hall, Ltd. for "Dartington Dairymaid." *Third* (£2) to Walter Hunt for "Tracey's Milkmaid 5th." *Fourth* (£1 10s.) to George Wills for "Rydon Milkmaid 7th."

RED POLLS, entered in Classes 15 to 17.—*First* (£8 and Silver Medal) to Earl of Radnor for "Longford Loafer." *Second* (£4 and Bronze Medal) to Lord Cranworth for "Grundisburgh Wander Duck." *Third* (£2) to Miss M. H. Bouverie for "Ranksborough Rosie." *Fourth* (£1 10s.) to Earl of Radnor for "Longford Ruby 7th." *Fifth* (£1) to Stuart Paul for "Kirton Sundial."

AYRSHIRES, entered in Classes 19 to 21.—*First* (£8 and Silver Medal), and Ayrshire Cattle Herd Book Society's Prize (£1) to James Turner for "Loaninghead Lady Emblem." *Second* (£4 and Bronze Medal) to John Baird for "Birnieknowe Adelaide." *Third* (£2), and Ayrshire Cattle Herd Book Society's Prize (£1) to M. Hastings for "North Boig Bonny Betty." *Fourth* (£1 10s.), and Ayrshire Cattle Herd Book Society's Prize (£2) to James Turner for "Loaninghead Pansy 2nd." *Fifth* (£1), and Ayrshire Cattle Herd Book Society's Prize (£1) to A. Barclay for "Compton Rosetta."

GUERNSEYS, entered in Classes 22 to 24.—*First* (£8) and Silver Medal) to Hon. A. E. Guinness for "Bella's Cora 4th of Les Jetteries." *Second* (£4 and Bronze Medal) to C. Holmes for "Dairy Queen 3rd of Clover Top." *Third* (£2) to C. Holmes for "Rosey of Goodnestone 62nd." *Fourth* (£1 10s.) to Capt. H. J. Pilbrow for "Valence Lavender 2nd." *Fifth* (£1) to H. H. Scott for "Rose of Goodnestone 15th."

JERSEYS, entered in Classes 25 to 27.—*First* (£8 and Silver Medal) to S. S. Lockwood for "Normanby Chloe." *Second* (£4 and Bronze Medal) to Mrs. G. J. Caddey for "Cambraie Elfa 2nd." *Third* (£2) to Sir John B. Lloyd for "Dreaming Fleckie Lass." *Fourth* (£1 10s.) to Mrs. H. Hawkins for "Empire Mary." *Fifth* (£1) to J. W. McCallum for "Pearcelands Eileen 10th."

OTHER BREEDS, entered in Classes 14, 18, and 28 to 31.—Prizes of £3 to Hon. Lady Shelley-Rolls for "Grace" (Welsh Black); Miss H. G. B. Bowen-Colthurst for "Summerhill Tricia 2nd" (Kerry); Lady Loder for "Grinstead Nightingale 3rd" (Dexter). Prize of £2 to University College of North Wales for "Snowdon Fuchsia" (Welsh Black).

BULLS (Progeny of).

CLASS 32.—DAIRY SHORTHORN BULL (Progeny of).—Entered in or eligible for Coates' Herd Book. *First* (£5) to J. P. Morgan for "Aldenham Barrington Lass 7th" and "Aldenham Wild Queen 18th" progeny of "Loobagh Dreadnought 13th." *Second* (£3) to J. P. Morgan for "Aldenham Kirklevington Lady 6th" and "Aldenham Barrington 11th," progeny of "Histon Royalist Darlington." *Third* (£2) to W. H. Vigus for "Revels Grand Duchess 4th" and "Revels Gwenda," progeny of "Orfold Wild Boy 2nd."

CLASS 33.—LINCOLNSHIRE RED SHORTHORN BULL (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to Chivers & Sons, Ltd., for "Histon Acacia 5th" and "Histon Dairymaid 69th," progeny of "Bendish Dairy King."

CLASS 34.—BRITISH FRIESIAN BULL (Progeny of).—Entered in or eligible for the Herd Book or Supplementary Register. *First* (£5) to Cecil Ball for "Oakham Dolce" and "Oakham Dazzle," progeny of "Saundby Endymion."

CLASS 35.—RED POLL BULL (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to Mrs. R. M. Foot for "White Hill Charming Delight" and "White Hill Charming Rose," progeny of "White Hill Cub Hunter." *Second* (£3) to Stuart Paul for "Kirton Oaken" and "Kirton Copyist," progeny of "Morston Count 2nd."

CLASS 36.—AYRSHIRE BULL (Progeny of).—Entered in or eligible for the Herd Book or Appendices. *First* (£5) to J. M. Logan for "Beauchamps Anita" and "Beauchamps Azure," progeny of "Meadowbank Attraction."

CLASS 37.—GUERNSEY BULL (Progeny of).—Entered in or eligible for the Herd Book. No entry.

CLASS 38.—JERSEY BULL (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to Mrs. R. M. Foot for "White Hill Dairylike Deauvillaise" and "White Hill Dairylike Beauty," progeny of "White Hill Dairyman." *Second* (£3) to R. G. Berkeley for "Spetchley Emerald" and "Spetchley Flapper," progeny of "Henbury Meteor."

CLASS 39.—BULL OF ANY OTHER DAIRY BREED (Progeny of).—Entered in or eligible for the Herd Book. *First* (£5) to G. Wills for "Rydon Milkmaid 7th" and "Rydon Milkmaid 9th," progeny of "Charlton No. 55" (South Devon). *Second* (£3) to Dartington Hall, Ltd., for "Dartington Cowslip 1st" and "Dartington Primula," progeny of "Jef Champion" (South Devon).

SHE GOATS AND GOATLINGS.

TROPHIES AND CUPS.

Open to all Breeds.

THE "HOLMES PEGLER JUBILEE" PERPETUAL CHALLENGE TROPHY for the Goat gaining the highest number of points in the Milking Competition and by Inspection. Awarded to Miss M. W. Harrison for "Hartye of Weald" (British Saanen).

THE BRITISH GOAT SOCIETY'S TEN-GUINEA PERPETUAL CHALLENGE CUP for the best Goat over two years that has borne a kid. Awarded to Miss M. W. Harrison for "Humble of Weald" (British Saanen).

THE "BARONESS BURDETT-COUTTS" PERPETUAL CHALLENGE CUP for the Goat gaining the highest number of points in the Milking Competition and by Inspection. Awarded to Miss M. W. Harrison for "Hartye of Weald" (British Saanen).

THE "TREMEDDA SELENE" PERPETUAL CHALLENGE CUP for the Goat gaining highest points in the Milking Competition, that has given 10 lbs. of milk in 24 hours at any Show under the B.G.S. Rules after January 1st, 1920, or has been shown to have produced at home 10 lbs. of milk on an average for ten days on an officially recognised record. Awarded to Miss M. W. Harrison for "Hartye of Weald" (British Saanen).

THE "DEWAR" PERPETUAL CHALLENGE CUP for a Female Goat in Milk, and Goatling. Awarded to Miss M. W. Harrison for "Hartye of Weald" (British Saanen) and "Lydo of Weald" (Toggenburg).

THE "RIDING" CHALLENGE CUP, offered by the BRITISH GOAT SOCIETY for the best group of three Goats exhibited by the same owner. Awarded to Miss J. Mostyn Owen for "Springfield Sandra" (Saanen), "Mostyn Meecha" (British) and "Mostyn Malva" (British Saanen).

THE "DEWAR" TWENTY-GUINEA PERPETUAL CHALLENGE TROPHY for the Goat two years old, other than an Anglo-Nubian, entered in the British Goat Society's Herd Book, gaining the highest number of points in the Milking Competition. Awarded to Miss M. W. Harrison for "Hartye of Weald" (British Saanen).

Open only to Toggenburgs.

THE "TOGGENBURG" PERPETUAL CHALLENGE CUP for the Pure Toggenburg Goat or Goatling entered in the Toggenburg Section of the British Goat Society's Herd Book, gaining the highest number of points on Inspection. Awarded to Miss M. Henderson for "Riding Chloe."

THE "STRAKER" CHALLENGE CUP for the Toggenburg Goat over two years old, gaining the highest number of points in either of the Milking Competitions. Awarded to Miss E. M. Sheppard for "Widdington Willenda."

Open only to British Alpines.

THE "ABBEY" PERPETUAL CHALLENGE CUP for the British Alpine Goat gaining the highest number of points on Inspection and Milking. A goat to compete must be bred by the exhibitor, entered in the British Alpine Section of the British Goat Society's Herd Book, and obtain an award in its Inspection Class. Awarded to Mrs. I. Morcom for "Cornish Pitch."

Open only to Saanens.

THE "SAANEN" CHALLENGE CUP for the Saanen Goat bred by the exhibitor and entered in the Saanen Section of the Herd Book, gaining the highest number of points on Inspection and in Milking. Awarded to G. E. Walsh for "Ripton Sybil."

THE "DELAMERE" PERPETUAL CHALLENGE TROPHY for the best Saanen Goat or Goatling on Inspection. Such animal to be entered in the Saanen section of the Herd Book and bred by the Exhibitor. Awarded to G. E. Walsh for "Ripton Sybil."

Open only to British Saanens.

THE "CHAMBERLAIN" PERPETUAL CHALLENGE TROPHY for the British Saanen Goat gaining the highest number of points on Inspection and Milking. A goat to compete must be bred by the exhibitor, entered in the Saanen or British Saanen Section of the Herd Book, and obtain an award in its Inspection Class. Awarded to Miss M. W. Harrison for "Hartye of Weald."

Open only to Anglo-Nubians.

THE "POMEROY" PERPETUAL CHALLENGE CUP for the Anglo-Nubian Goat, entered in the Anglo-Nubian Section of the British Goat Society's Herd Book, gaining the highest number of points in the Milking Competition. Awarded to Miss K. Pelly for "Theydon Judy."

Open only to Goatlings.

A BRONZE MEDAL offered by the British Goat Society for the best Goatling in Classes 49 to 53. Awarded to J. R. Egerton for "Malpas Muskrose" (British).

MILKING TRIAL PRIZES.

CLASS 40.—SHE-GOATS, FIRST KIDDERS.—*First* (£6 and Silver Medal) to Miss M. W. Harrison for "Humble of Weald" (British Saanen). *Second* (£3) to Miss K. R. Barnaby for "Bitterne Favourite" (British). *Third* (£1 10s.) to G. E. Walsh for "Ripton Sybil" (Saanen). *Fourth* (10s.) to Mrs. G. H. Perry for "Buckwyns Georgina" (Saanen).

CLASS 41.—SHE GOATS.—Not eligible for Class 40. *First* (£6 and Silver Medal) to Miss M. W. Harrison for "Hartye of Weald" (British Saanen). *Second* (£3) to Miss M. W. Harrison for "Hindrance of Weald" (British Saanen). *Third* (£1 10s.) to Mrs. I. Morcom for "Cornish Praline" (British Toggenburg). *Fourth* (10s.) to Miss E. Pope for "Wiremill Peach" (British Toggenburg).

INSPECTION PRIZES.

Class 42.—She-Goats, Toggenburg, entered or eligible for entry in the Toggenburg Section of the Herd Book. *First* (£2 10s.) to Miss M. Henderson for "Riding Chloe." *Second* (£1 5s.) to Miss E. M. Sheppard for "Broxbourne Sunset." *Third* (15s.) to Miss E. M. Sheppard for "Widdington Willenda."

Class 43.—She-Goats, British Alpine, entered in or eligible for entry in the British Apline Section of the Herd Book. *First* (£2 10s.) to Miss M. G. Madoc for "Melverley Mistake." *Second* (£1 5s.) to Mrs. W. A. Stirling for "Twinstead Threepennybit." *Third* (15s.) to Mrs. I. Morcom for "Cornish Pitch."

Class 44.—She Goats, Saanen, entered or eligible for entry in the Saanen Section of the Herd Book. *First* (£2 10s.) to Miss J. M. Owen for "Springfield Sandra." *Second* (£1 5s.) to G. E. Walsh for "Ripton Sybil." *Third* (15s.) to Mrs. G. H. Perry for "Buckwyn's Georgina."

Class 45.—She-Goats, British Saanen, entered in or eligible for entry in the British Saanen Section of the Herd Book. *First* (£2 10s.) to Miss M. W. Harrison for "Humble of Weald." *Second* (£1 5s.) to Miss E. Pope for "Heddon Slipper." *Third* (15s.) to Miss M. W. Harrison for "Hartye of Weald."

Class 46.—She-Goats, Anglo-Nubian, entered or eligible for entry in the Anglo-Nubian Section of the Herd Book. *First* (£2 10s.) to J. R. Egerton for "Malpas Merry." *Second* (£1 5s.) to Miss K. Pelly for "Theydon Judy." *Third* (15s.) to J. R. Egerton for "Malpas Mimoya."

Class 47.—She-Goats, British Toggenburg, entered in or eligible for entry in the British Toggenburg Section or Register of the Herd Book. *First* (£2 10s.) to Mrs. I. Morcom for "Cornish Praline." *Second* (£1 5s.) to Miss E. Pope for "Wiremill Peach."

Class 48.—She-Goats, Any other Variety.—Not eligible for previous Classes. *First* (£2 10s.) to Miss J. M. Owen for "Mostyn Meecha" (British). *Second* (£1 5s.) to Miss K. R. Barnaby for "Bitterne Favourite" (British). *Third* (15s.) to Mrs. I. Morcom for "Cornish Playful" (British).

Class 49.—Goatlings, British Alpine, entered in or eligible for entry in the British Alpine Section or Register of the Herd Book, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Miss E. Pope for "Highland Mauvette." *Second* (£1 5s.) to Miss M. G. Madoc for "Melverley Marguerite." *Third* (15s.) to Miss Pickard for "Stratvale Naomi."

Class 50.—Goatlings, Saanen or British Saanen, entered in or eligible for entry in the Saanen Section or British Saanen Section or Register of the Herd Book, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Miss J. M. Owen for "Mostyn Malva" (British Saanen). *Second* (£1 5s.) to J. R. Egerton for "Malpas Merciful" (British Saanen). *Third* (15s.) to G. E. Walsh for "Twinstead Thecla" (British Saanen).

Class 51.—Goatlings, Anglo-Nubian, entered in or eligible for entry in the Anglo-Nubian Section of the Herd Book, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to J. R. Egerton for "Malpas Merrilegs." *Second* (£1 5s.) to Mrs. M. E. T. Howden for "Buttermint of Cottishall." *Third* (15s.) to J. R. Egerton for "Malpas Mindful."

Class 52.—Goatlings, Toggenburg or British Toggenburg, entered in or eligible for entry in the Toggenburg Section or British Toggenburg Section or

Register of the Herd Book, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to Mrs. I. Morcom for " Cornish Meltis " (British Toggenburg). *Second* (£1 5s.) to Miss M. W. Harrison for " Lydo of Weald " (Toggenburg). *Third* (15s.) to Miss E. M. Sheppard for " Widdington Wintersweet " (Toggenburg).

CLASS 53.—GOATLINGS, ANY OTHER VARIETY, not eligible for previous Classes, over 1 year but not exceeding 2 years old. *First* (£2 10s.) to J. R. Egerton for " Malpas Muskrose " (British). *Second* (£1 5s.) to Mrs. W. A. Stirling for " Twinstead Thaler " (British). *Third* (15s.) to Mrs. I. Morcom for " Cornish Mousseline " (British).

CHEESE.

TROPHIES AND CUPS.

Open to all Varieties.

THE " LONSDALE " PERPETUAL CHALLENGE TROPHY (presented by the Earl of Lonsdale, K.G., G.C.V.O.) for the best exhibit of Cheese, made on the farm occupied by the Exhibitor, and the product of whole milk produced thereon. Awarded to H. Barnett for Cheshire.

Open only to Scottish Cheese.

THE AYRSHIRE AGRICULTURAL ASSOCIATION'S PERPETUAL CHALLENGE TROPHY (presented by LORD ROWALLAN) for the best exhibit of Scottish Cheese. Such cheese to be made on the farm in Scotland occupied by the Exhibitor and to be the product of whole milk produced thereon. Awarded to the Trustees of the late Peter Wright for Ayrshire Dunlop.

Open only to Stilton and Wensleydale.

CHAMPION CUP, value £10 10s. (presented by the CORPORATION OF THE CITY OF LONDON), for the best exhibit of Stilton or Wensleydale Cheese. Awarded to Wilts. United Dairies, Ltd., Swepstone for Stilton.

Open only to Colonial Cheddar.

THE " BLEDISLOE " PERPETUAL CHALLENGE TROPHY, value 50 Guineas (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the best exhibit of Cheddar Cheese produced in the British Empire (overseas) excluding Irish Free State. Awarded to Drummond Co-operative Dairy Co., New Zealand.

THE " BLEDISLOE " PERPETUAL CHALLENGE CUP, value 50 Guineas (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the Provincial Area of New Zealand exhibiting the best Cheese. Awarded to the Province of Southland.

THE " HANSEN " CHALLENGE TROPHY, value £25 (presented by MESSRS. CHR. HANSEN'S LABORATORY, LTD.), for the best exhibit of Cheddar Cheese produced in the British Empire (overseas) excluding Irish Free State. Awarded to Drummond Co-operative Dairy Co., New Zealand.

Open only to Cheshire.

THE " BLAND " CHALLENGE CUP (value 20 Guineas) and £5 in cash (presented by MR. C. BLAND) for the best exhibit of Cheshire Cheese. Awarded to H. Barnett.

Open only to Small Hard Pressed.

A SILVER FRUIT DISH (presented by MRS. A. S. MCWILLIAM, M.B.E.), for the best exhibit of small pressed, quick-ripening cheese. Awarded to T. E. Beckett.

Open only to Inter-County Class.

THE "INTER-COUNTY" CHALLENGE SHIELD (presented by the late JOHN BENSON), for the winner of the Inter-County Cheese Competition. Awarded to Gloucestershire.

Open only to Hard-pressed other than Stilton, Wensleydale, Cheddar and Cheshire.

CHAMPION CUP, value £10 10s. (presented by the CORPORATION OF THE CITY OF LONDON), for best exhibit of Hard-pressed Cheese other than Stilton, Wensleydale Cheddar and Cheshire. Awarded to the Trustees of the late Peter Wright for Ayrshire Dunlop.

CLASS 54.—STILTON (6 Cheeses). Open only to Dairy Farmers. (Factors or Factories not eligible to compete). Cancelled.

CLASS 55.—STILTON (12 Cheeses).—*First* (£10 and Silver Medal) to Wilts United Dairies, Ltd. (Swepstone). *Second* (£5) to Colston Bassett & District Dairy, Ltd. *Third* (£3) to Wilts United Dairies, Ltd. (Harley).

CLASS 56.—CHEDDAR TRUCKLES (6 Cheeses).—Open only to Dairy Farmers. (Factors or Factories are not eligible to compete).—*First* (£4) to S. T. White. *Second* (£3) to T. Durden. *Third* (£2) to E. J. Loder. *Fourth* (£1) to W. H. Collins.

CLASS 57.—CHEDDAR (2 Cheeses, not less than 40 lbs. each).—Open only to Dairy Farmers. (Factors or Factories are not eligible to compete).—*First* (£6) to T. Durden. *Second* (£4) to S. T. White. *Third* (£3) to W. H. Collins. *Fourth* (£2) to Osborne Bros. *Fifth* (£1) to R. A. Perry. *Sixth* (£1) to B. H. J. W. White. *Seventh* (£1) to E. White.

CLASS 58.—CHEDDAR AND CHEDDAR TRUCKLES (Long-keeping). (4 Cheeses, not less than 10 lbs. each made on or before 31st July, 1936).—*First* (£7) to Osborne Bros *Second* (£5) to S. T. White. *Third* (£4) to W. H. Collins. *Fourth* (£3) to F. Portch. *Fifth* (£2) to B. H. J. W. White. *Sixth* (£1) to J. P. Hunter.

CLASS 59.—CHEDDAR (8 Cheeses). Open only to Dairy Farmers. (Factors or Factories are not eligible to compete).—*First* (£12 and Silver Medal) to Osborne Bros. *Second* (£10) to S. McColm. *Third* (£7) to W. Mathie. *Fourth* (£5) to G. & J. Love. *Fifth* (£1) to T. Durden. *Sixth* (£1) to S. T. White. *Seventh* (£1) to J. B. Sproat.

CLASS 60.—FACTORY CHEDDAR (6 Cheeses of not less than 28 lbs. each, to be manufactured at and exhibited by a recognised Cheese Factory dealing with a minimum of 500 gallons of milk daily in the United Kingdom). —*First* (£6) to Scottish Milk Marketing Board (Galloway Branch). *Second* (£4) to Scottish Milk Marketing Board (Dairy Branch). *Third* (£2) to W. H. Amesbury. *Fourth* (£1) to Cheddar Valley Co., Ltd. *Fifth* (£1) to Scottish Co-operative Wholesale Society.

CLASS 61.—SMALL CHEDDAR (4 Cheeses, made at home, not exceeding 10 lbs. each). Open to Pupils who have received instruction at an Agricultural College or Farm School during 1935 or 1936.—*First* (£3) to Miss D. M.

Bridle. *Second* (£2) to W. H. Amesbury. *Third* (£1) to W. J. Salmon. *Fourth* (10s.) to A. Taylor.

Class 62.—Cheddar (2 Cheeses, not less than 60 lbs. each, Coloured or Uncoloured). Open to makers only, and produced in the British Empire (Overseas), excluding Irish Free State. *First* (Gold Medal) to Drummond Co-operative Dairy Co., Otautau, New Zealand. *Second* (Silver Medal) to Awarua Co-operative Dairy Co., Winton, New Zealand. *Third* (Bronze Medal) to Pahia Co-operative Dairy Co., Pahia, New Zealand.

Class 63.—Cheshire (6 Cheeses). Open only to Dairy Farmers. (Factors or Factories are not eligible to compete).—*First* (£12) to T. E. Beckett. *Second* (£8) to P. H. Walley. *Third* (£5) to T. W. Edge. *Fourth* (£4) to F. W. Hesketh. *Fifth* (£1) to A. Blake.

Class 64.—Cheshire (4 Coloured Cheeses, not less than 40 lbs. each). Open only to Dairy Farmers. (Factors or Factories are not eligible to compete). *First* (£7) to T. W. Edge. *Second* (£4) to J. J. Burston. *Third* (£3) to T. E. Beckett. *Fourth* (£2) to J. Davies. *Fifth* (£1) to H. Barnett. *Sixth* (£1) to H. Evans.

Class 65.—Cheshire (4 Uncoloured Cheeses, not less than 40 lbs. each). Open only to Dairy Farmers. (Factors or Factories are not eligible to compete). *First* (£6) to H. Barnett. *Second* (£4) to T. E. Beckett. *Third* (£2) to P. H. Walley. *Fourth* (£1) to W. E. Blake.

Class 66—Factory Cheshire (6 Cheeses of not less than 28 lbs each, to be manufactured at and exhibited by a recognised Cheese Factory dealing with a minimum of 500 gallons of milk daily in the United Kingdom). *First* (£6) to Cookson's (Minshull), Ltd. *Second* (£4) to Newhall Dairy, Ltd. *Third* (£2) to A. Heald, Ltd. *Fourth* (£1) to B. S. Bostock, Ltd.

Class 67.—Cheshire (Long Keeping) (4 Coloured or Uncoloured Cheeses, not less than 40 lbs. each. Made on or before 31st July, 1936). *First* (£7) to Cookson's (Minshull), Ltd. *Second* (£5) to T. W. Young. *Third* (£4) to T. E. Beckett. *Fourth* (£3) to H. Barnett. *Fifth* (£1) to W. H. Hobson. *Sixth* (£1) to A. Blake.

Class 68.—Cheshire (4 Cheeses, not less than 40 lbs. each). Open only to those who have never won a Prize for Cheshire Cheese at any Show of the British Dairy Farmers' Association. Open only to Dairy Farmers. (Factors or Factories are not eligible to compete). *First* (£5) to W. Bennion. *Second* (£3) to A. R. Fletcher. *Third* (£2) to S. L. Dutton. *Fourth* (£1) to S. Pierpoint. *Fifth* (£1) to H. Hall.

Class 69.—Small Cheshire (4 Cheeses, made at home, not exceeding 10 lbs. each. Open to Pupils who have received instruction at an Agricultural College or Farm School during 1935 or 1936. *First* (£3) to Miss G. Lorenzen. *Second* (£2) to S. Beckett. *Third* (£1) to Miss H. M. Hobson. *Fourth* (10s.) to Miss D. Bostock.

Class 70.—Ayrshire Dunlops (4 Cheeses, from 40 lbs. to 60 lbs. each). *First* (£6) to Trustees of the late Peter Wright. *Second* (£4) to Miss E. M. Gilchrist. *Third* (£2) to D. Clark. *Fourth* (£1) to S. McColm.

Class 71.—Leicester (2 Cheeses). *First* (£4) to Ann's Farmhouse, Ltd. *Second* (£3) to British Dairy Institute. *Third* (£2) to Midland Agricultural College.

CLASS 72.—LANCASHIRE (2 Cheeses, not less than 30 lbs. each). Open only to Dairy Farmers. (Factors of Factories are not eligible to compete). *First* (£4) to J. Fisher. *Second* (£3) to E. Pelling. *Third* (£2) to W. Walmsley.

CLASS 73.—LANCASHIRE (Long Keeping) (2 Cheeses, not less than 30 lbs. each, made on or before 31st July, 1936). *First* (£5) to J. H. Ball & Son. *Second* (£4) to C. Cowell. *Third* (£3) to J. Lawrenson. *Fourth* (£2) to Mrs. S. Mackereth.

CLASS 74.—DERBY (4 Uncoloured Cheeses, not less than 25 lbs. each. *First* (£4) to Ann's Farmhouse, Ltd. *Second* (£3) to J. M. Nuttall & Co., Ltd. *Third* (£2) to Midland Agricultural College.

CLASS 75.—DOUBLE GLOUCESTER (4 Cheeses, from 26 lbs. to 30 lbs. each). *First* (£4) to Ann's Farmhouse, Ltd. *Second* (£3) to British Dairy Institute. *Third* (£2) to H. H. Pickford.

CLASS 76.—SINGLE GLOUCESTER (4 Cheeses, from 13 lbs. to 15 lbs. each. *First* (£4) to Mrs. J. F. Pain. *Second* (£3) to Mrs. A. Browning. *Third* (£2) to H. H. Pickford.

CLASS 77.—CAERPHILLY (4 Cheeses, not exceeding 8 lbs. each). *First* (£4) to W. H. Amesbury. *Second* (£3) to Cheddar Valley Dairy Co., Ltd. *Third* (£2) to Dried Milk Products, Ltd.

CLASS 78.—WENSLEYDALE (6 Blue-moulded Cheeses).—*First* (£2) to British Dairy Institute. *Second* (£1 10s.) to A. Rowntree & Sons, Ltd. (Coverham).

CLASS 79.—WENSLEYDALE (6 White Flat Cheeses not less than 8 lbs. and not exceeding 25 lbs).—*First* (£2) to Dried Milk Products, Ltd. *Second* (£1 10s.) to Miss B. J. Mudd. *Third* (£1) to A. Rowntree & Sons, Ltd. (Coverham).

CLASS 80.—SMALL HARD PRESSED (Long Keeping) (4 Cheeses, not less than 2 lbs. and not exceeding 8 lbs. each). *First* (£5) to H. Barnett. *Second* (£3) to B. H. J. W. White. *Third* (£2) to A. H. Hunt. *Fourth* (£1) to T. E. Beckett. *Fifth* (£1) to F. W. Hesketh.

CLASS 81.—SMALL HARD PRESSED (Quick Ripening) (4 Cheeses, not less than 2 lbs. and not exceeding 8 lbs. each. *First* (£5) to T. E. Beckett. *Second* (£3) to A. H. Hunt. *Third* (£2) to H. Barnett. *Fourth* (£1) to W. H. Collins. *Fifth* (£1) to P. H. Walley. *Sixth* (£1) to B. H. J. W. White.

CLASS 82.—SMALL HARD PRESSED (4 Cheeses, not to exceed 2 lbs. each). *First* (£2) to B. H. J. W. White. *Second* (£1) to Midland Agricultural College. *Third* (15s.) to B. S. Bostock, Ltd. *Fourth* (10s.) to H. Barnett.

CLASS 83.—INTER-COUNTY COMPETITION for collections of 8 Smallholder Cheeses not exceeding 8 lbs. each, made by four individual persons in their own dairies, and who have received instruction in Cheesemaking at a County Council Cheese School.—*First* (£8 and Shield) to Gloucestershire. *Instructress* : Miss A. Colnett. *Competitors* : Miss E. Browning, Miss M. Haine, Miss R. Pain and Miss J. Shield. *Second* (£6) to Monmouthshire. *Instructress* : Miss M. M. Trippe. *Competitors* : Mrs. S. A. Harris, Miss D. Heath, Miss D. Price and Miss M. Taylor. *Third* (£4) to Wiltshire. *Instructress* : Mrs. I. M. Bull. *Competitors* : Miss P. Hazell, Miss O. Hoddinott, Miss M. Punter and Miss J. Scenescall.

CLASS 84.—SWEET CREAM CHEESE, made from pure Cream only. No Milk or Curd to be added (6 Cheeses of approximately 4 ozs. each). *First* (£1) to S. E. Butler. *Second* (15s.) to South Western Dairies Ltd. *Third* (10s.) to Monmouthshire Institute of Agriculture.

CLASS 85.—UNRIPENED SOFT CHEESE, other than Cream Cheese made direct from Milk (4 Cheeses of approximately 8 ozs. each).—*First* (£1) to Midland Agricultural College. *Second* (15s.) to C. J. Allday. *Third* (10s.) to J. H. N. Roberts.

COLLECTION OF PRODUCE

CLASS 86.—Open only to individual Women's Institutes. To consist of 1 lb. Fresh Butter ; 1 Trussed Fowl ; 8 ozs. of Cream (raw or scalded) ; 8 ozs. Cream Cheese (either in two packets of 4 ozs. each, or one packet of 8 ozs.) and 1 doz. Eggs. The Collection to be packed in a box and sent to the Show by Parcel Post. Packages taken into consideration when making awards.—*First* (£5) to Kilkhampton Women's Institute. *Second* (£3) to Slad Women's Institute. *Third* (£2) to Clarach Women's Institute.

BACON.

Cups, Open only to Bacon-Pig Classes.

THE " C. & T. HARRIS (CALNE), LTD." PERPETUAL CHALLENGE CUP, presented by MESSRS. C. & T. HARRIS (CALNE), LTD., for the four best sides of Wiltshire Bacon in any one entry in Classes 90, 91, 92 or 93. Awarded to Earl of Radnor (Large White).

THE " WHITLEY " CHALLENGE CUP, value 20 Guineas (presented by the late MR. S. R. WHITLEY), for the first prize winner in Class 90. Awarded to Chivers & Sons, Ltd. (Large White).

THE " BEALE " CHALLENGE CUP, value 20 Guineas (presented by CAPT. B. P. BEALE, M.C.), for the first prize winner in Class 91. Awarded to The Earl of Radnor (Large White).

THE " BLEDISLOE " BACON CHALLENGE CUP, value 20 Guineas (presented by VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E.), for the first prize winner in Class 92. Awarded to Viscount Lymington (Large White and Wessex Saddleback).

THE " PIG RECORDING " CHALLENGE CUP, value 20 Guineas (presented by MR. WILLIAM DAVIDSON), for the exhibit gaining the highest number of marks in Class 93, which reaches the standard of a First Class Award. Awarded to T. L. Ward (Large White and Middle White).

CLASS 87.—FOUR SMOKED SIDES, Mild Cured in Wiltshire Style, with Ham attached. Cancelled.

CLASS 88.—FOUR PALE DRIED SIDES, Mild Cured in Wiltshire Style, with Ham attached. Cancelled.

CLASS 89.—TWO SIDES OF BACON SMOKED, TWO SIDES OF BACON PALE DRIED, TWO HAMS SMOKED, AND TWO HAMS PALE DRIED (the weight of the sides not less than 56 lbs. and not more than 68 lbs. each. The Hams not less than 12 lbs. and not more than 20 lbs. each. Cancelled.

CLASS 90.—BACON PIGS.—Two Hogs and two Gilts, farrowed on or after 1st March, 1936, by a Registered Sire and out of a Registered Dam of the same Breed, to be entered by the Breed Society or Breeder.—*First* (£12 and

Whitley Cup) to Chivers & Sons, Ltd. (Large White). *Second* (£6) to A. Barclay (Large White).

CLASS 91.—BACON PIGS (PEDIGREE). One Hog and one Gilt, farrowed on or after 1st March, 1936, by a Registered Sire and out of a Registered Dam of the same Breed.—*First* (£5 and Beale Cup) to Earl of Radnor (Large White). *Second* (£3) to W. A. Whidden (Large White). *Third* (£2) to R. E. Owen (Welsh).

CLASS 92.—BACON PIGS—FIRST CROSS (One Hog and one Gilt, farrowed on or after 1st March, 1936, by a Pure-bred Sire and out of a Pure-bred Dam, the evidence required being the eligibility to register. *First* (£5 and "Bledisloe Cup") to Viscount Lymington (Large White and Wessex Saddleback). *Second* (£3) to E. Harding (Large White and Wessex). *Third* (£2) to C. L. Coxon (Welsh and Large White).

CLASS 93.—BACON PIGS—RECORDED. Two Hogs and two Gilts, from the same litter. One parent of the litter must be pure-bred, the evidence required being the eligibility to register. *First* Class Award (£4) to R. Silcock & Sons, Ltd. (Large White), T. L. Ward (Large White and Middle White), and Miss J. K. B. Little (Large White and Large Black). *Second* Class Award (£2) to Earl of Radnor (Large White).

CLASS 94.—FOUR SIDES OF BACON, suitable for the London Market. Produced in the British Empire (Overseas), excluding Irish Free State. Open to Curers only.—*First* (Silver Medal) to Burns & Co., Ltd., Winnipeg, Alberta, Canada. *Second* (Bronze Medal) to Dumarts Ltd., Kitchener, Ontario, Canada.

HAMS.

CLASS 95.—FOUR PALE DRIED (long cut, of Winter or Spring cure, not over 14 lbs. weight.—*First* (Silver Medal) and *Second* (Bronze Medal) to Hollingsworths.

CLASS 96.—FOUR PALE DRIED (long cut, of Winter or Spring cure, over 14 lbs. weight).—*First* (Silver Medal) to J. A. Hunter & Co., Ltd. *Second* (Bronze Medal) to Hollingsworths.

CLASS 97.—FOUR SMOKED (long cut, mild cured, not over 10 weeks cured, not over 15 lbs. weight).—*First* (Silver Medal) to J. A. Hunter & Co., Ltd. *Second* (Bronze Medal) to J. E. Downs & Sons.

CLASS 98.—FOUR PALE DRIED (long cut, mild cured, not over 10 weeks cured, over 15 lbs. weight).—*First* (Silver Medal) to J. A. Hunter & Co., Ltd. *Second* (Bronze Medal) to Hollingsworths.

CLASS 99.—SELLING CLASS FOR TWO HAMS, ANY VARIETY.—*First* (£2) to Hollingsworths. *Second* (£1) to J. E. Downs & Sons.

BUTTER.

(Open to Makers only residing in any part of Great Britain or Ireland).

Cup for 2 lb. Butter Classes.

CHAMPION CUP, value £10 10s. (presented by the CORPORATION OF THE CITY OF LONDON), for the best exhibit of Butter in Classes 98 to 105 inclusive. Awarded to Mrs. G. E. Blackler.

CLASS 100.—SLIGHTLY SALTED, open to farmers, their wives, sons and daughters, who have never won a Prize in the Butter Classes at any of the Association's Shows; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Miss N. R. Gwennap. *Second* (£2) to Miss G. G. Olde. *Third* (£1) to L. L. Hugill.

CLASS 101.—PERFECTLY FREE FROM SALT, the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. A. G. Dennis. *Second* (£2) to Mrs. J. Mogford. *Third* (£1) to Mrs. G. E. Blackler.

CLASS 102.—SLIGHTLY SALTED, the produce of Channel Islands Cattle and their Crosses; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. G. E. Blackler. *Second* (£2) to Miss M. M. Varker. *Third* (£1) to Mrs. A. G. Dennis.

CLASS 103.—PERFECTLY FREE FROM SALT, the produce of Shorthorn and other Cattle and their Crosses (except Channel Islands and their Crosses); 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. A. G. Dennis. *Second* (£2) to Mrs. G. E. Blackler. *Third* (£1) to Mrs. J. Mogford.

CLASS 104.—SLIGHTLY SALTED, the produce of Shorthorn and other Cattle and their Crosses (except Channel Islands and their Crosses); 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. G. E. Blackler. *Second* (£2) to Mrs. A. G. Dennis. *Third* (£1) to Mrs. P. Roach. *Fourth* (10s.) to Mrs. H. Roberts.

CLASS 105.—SLIGHTLY SALTED, to be made from Scalded Cream only; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Mrs. G. E. Blackler. *Second* (£2) to Mrs. P. Roach. *Third* (£1) to Mrs. J. Mogford.

CLASS 106.—PERFECTLY FREE FROM SALT, to be made from Scalded Cream only; 2 lbs. in 1-lbs. lumps (brick shape).—*First* (£3) to Mrs. A. G. Dennis. *Second* (£2) to Mrs. G. E. Blackler. *Third* (£1) to Mrs. J. Mogford.

CLASS 107.—ESPECIALLY FOR KEEPING, slightly Salted; 2 lbs. in 1-lb. lumps (brick shape).—*First* (£3) to Miss M. W. Gwennap. *Second* (£2) to Mrs. G. E. Blackler. *Third* (£1) to Miss P. Varker.

CLASS 108.—SLIGHTLY SALTED, made from Goats' Milk (butter colouring may be used), 1 lb. in ½-lb. lumps (brick shape). Cancelled.

CLASS 109.—SALTED, in wooden boxes containing 12 1-lb. vegetable parchment wrapped bricks.—*First* (£3) to Boherlahan Co-operative Agricultural and Dairy Society. *Second* (£2) to Kilross Co-operative Dairy Society, Ltd. *Third* (£1) to Egginton Dairy. *Fourth* (10s.) to M. S. Dumbleton.

CLASS 110.—UNSALTED, in wooden boxes, containing 12 1-lb. vegetable parchment wrapped bricks.—*First* (£3) to M. S. Dumbleton. *Second* (£2) to Shanagolden Co-operative Dairy Society, Ltd. *Third* (£1) to Kilross Co-operative Dairy Society, Ltd. *Fourth* (10s.) to C. & G. Prideaux.

CLASS 111.—SALTED, in bulk, in 28-lb. vegetable parchment lined wooden boxes. *First* (£3) to M. S. Dumbleton. *Second* (£2) to Boherlahan Co-operative Agricultural & Dairy Society, Ltd. *Third* (£1) to Shanagolden Co-operative Dairy Society, Ltd. *Fourth* (10s.) to Garryspillane Creamery.

CLASS 112.—SALTED, in bulk, in 56-lb. vegetable parchment lined wooden boxes.—*First* (£3) to M. S. Dumbleton. *Second* (£2) to Kilross Co-operative Dairy Society, Ltd. *Third* (£1) to Shanagolden Co-operative Dairy Society, Ltd. *Fourth* (10s.) to Garryspillane Creamery.

CLASS 113.—TWO POUNDS, made up in the most attractive form for Table use. Scotch hands, moulds, &c., may be used for shaping the Butter (touching it directly by the human hand is prohibited). Exhibits, shown on a space 1 foot square, will be judged on quality as well as appearance. *First* (£4) to Mrs. A. G. Dennis. *Second* (£2) to Miss A. M. Ward. *Third* (£1) to J. Iceton.

CLASS 114.—FANCY OR ORNAMENTAL DESIGN, with foliage or other extraneous decoration. *First* (£4) to Miss M. Joslin. *Second* (£2) to J. Iceton.

CLASS 115.—SALTED (Produced in the British Empire (Overseas), excluding Irish Free State). One cube box containing not less than 56 lbs. *First* (Gold Medal) to Kyabram & District Co-operative Dairy Co., Ltd., Kyabram Victoria, Australia. *Second* (Silver Medal) to Downs Co-operative Dairy Association, Ltd., Dalby, Queensland, Australia. *Third* (Bronze Medal) to Chinchilla Co-operative Dairy Association, Ltd., Chinchilla, Queensland, Australia.

CLASS 116.—UNSALTED (Produced in the British Empire (Overseas), excluding Irish Free State). One cube box containing not less than 56 lbs. *First* (Gold Medal) to Maryborough Co-operative Dairy Association, Ltd., Kingaroy, Queensland, Australia. *Second* (Silver Medal) to Downs Co-operative Dairy Association, Ltd., Toowoomba, Queensland, Australia. *Third* (Bronze Medal) to Oakey District Co-operative Butter Association, Ltd., Oakey, Queensland, Australia.

CREAM.

CLASS 117.—CLOTTED CREAM, with a fat content of not less than 50 per cent. Open only to Wholesale Creameries and Factories. *First* (£2 and Silver Medal) to Dairy Farmers' Milk Supply, Ltd. *Second* (£1) to C. & G. Prideaux, Ltd. *Third* (10s.) to Hammett's Dairis, Ltd.

CLASS 118.—CREAM. Each exhibit to contain one vessel of pasteurized cream with a fat content of not less than 50 per cent. and not more than 55 per cent.; one vessel of pasteurized, homogenized cream with a fat content of not less than 25 per cent. and not more than 30 per cent., and one vessel of pasteurized, homogenized cream with a fat content of not less than 15 per cent. and not more than 20 per cent. Open only to Wholesale Creameries and Factories. *First* (£2 and Challenge Cup) to Express Dairy Co., Ltd. *Second* (£1) to Hammett's Dairies, Ltd. *Third* (10s.) to Wilts. United Dairies, Ltd.

CLASS 119.—CLOTTED CREAM, with a fat content of not less than 50 per cent. Not open to Wholesale Creameries and Factories. *First* (£2 and Silver Medal) to W. R. Beer. *Second* (£1) to Miss I. G. Roach. *Third* (10s.) to S. E. Butler.

CLASS 120.—CREAM, OTHER THAN CLOTTED, with a fat content of not less than 50 per cent. and not more than 55 per cent. Not open to Wholesale Creameries and Factories. *First* (£2 and Silver Medal) to Mrs. Howard Palmer. *Second* (£1) to Miss M. W. Gwennap. *Third* (10s.) to S. E. Butler.

BOTTLED FRUITS, VEGETABLES AND JAMS.

SILVER MEDAL of the British Dairy Farmers' Association for the best Exhibit in Classes 121 to 131 awarded to Mrs. D. Gee for Bottled Vegetables.

CLASS 121.—SIX BOTTLES OF SOFT FRUIT, of not less than 4 varieties. *First* (£2) to Mrs. W. S. Roberts. *Second* (£1) to Miss Alden. *Third* (10s.) to Mrs. D. Gee.

CLASS 122.—SIX BOTTLES OF STONE FRUIT, of not less than 4 varieties.—*First* (£2) to Miss Alden. *Second* (£1) to Miss F. Hole. *Third* (10s.) to Miss M. Clark.

CLASS 123.—THREE BOTTLES OF SOFT FRUIT (distinct).—*First* (£1) to Miss E. M. Wing. *Second* (10s.) to Mrs. M. Davies. *Third* (7s. 6d.) to Miss M. Clark.

CLASS 124.—THREE BOTTLES OF STONE FRUIT (distinct).—*First* (£1) to Miss E. M. Wing. *Second* (10s.) to Mrs. P. E. Smith. *Third* (7s. 6d.) to Miss M. Clark.

CLASS 125.—THREE BOTTLES OF STONE OR SOFT FRUIT (distinct).—*First* (£1) to Miss F. Hole. *Second* (10s.) to Mrs. P. E. Smith. *Third* (7s. 6d.) to Mrs. Skeate.

CLASS 126.—THREE CANS OF STONE OR SOFT FRUIT (distinct).—*First* (£1) to Mrs. C. M. Ingoldby. *Second* (10s.) to Miss E. A. Webb. *Third* (7s. 6d.) to MRS. M. Davies.

CLASS 127.—THREE BOTTLES OF PURE NATURAL FRUIT JUICES (not exceeding 8 ozs.), of any variety, free from any synthetic ingredient and produced from fruit grown in the United Kingdom. Permitted preservative allowed. *Two equal firsts* (£2 each) to Mrs. W. S. Roberts and Miss M. Clark. *Second* (£1) to Miss Alden. *Third* (10s.) to Miss V. F. Harrison.

CLASS 128.—SIX BOTTLES OF VEGETABLES, of not less than 4 varieties (Tomatoes admitted).—*First* (£2) to Mrs. D. Gee. *Second* (£1) to Miss E. M. Wing. *Third* (10s.) to Mrs. P. E. Smith.

CLASS 129.—THREE BOTTLES OF VEGETABLES (distinct).—*First* (£1) to Miss J. Larter. *Second* (10s.) to Mrs. V. Ford. *Third* (7s. 6d.) to Miss E. M. Wing.

CLASS 130.—THREE CANS OF VEGETABLES (distinct).—*First* (£1) to Miss E. A. Webb. *Second* (10s.) to Miss M. E. Rivers. *Third* (7s. 6d.) to Mrs. C. M. Ingoldby.

CLASS 131.—THREE JARS OF JAM (1 lb. each), dissimilar (any variety).—*First* (£1) to Mrs. E. Parker. *Second* (10s.) to Mrs. V. Ford. *Third* (7s. 6d.) to Miss Hope.

CLASS 132.—CO-OPERATIVE EXHIBIT OF BOTTLED FRUITS (Preserved in plain water or Syrup), VEGETABLES, JAMS, FRUIT, JELLIES, PICKLES AND CHUTNEYS. Open only to individual Women's Institutes. Each Exhibit to be the work of not less than four Members. To consist of 3 bottles of Soft Fruit, 3 bottles of Stone Fruit, 3 bottles of Vegetables 3 1-lb. jars of Jam or Fruit Jelly, 3 jars of Pickles or Chutney. All exhibits to be shown in glass containers and to be of not less than two varieties.—*First* (£5) to Wing Women's Institute. *Second* (£3) to Frensham Women's Institute. *Third* (£2) to Belton (Rutland) Women's Institute.

HONEY, WAX, &c.

CLASS 133.—SIX JARS OF EXTRACTED LIGHT-COLOURED HONEY (1 lb. each, approximate weight).—*First* (£1) to W. Pond. *Second* (15s.) to H. S. Barter. *Third* (12s. 6d.) to H. Pilditch. *Fourth* (10s.) to A. E. Warren.

Class 134.—Six Jars of Extracted Medium-coloured Honey excluding Heather Honey (1 lb. each approximate weight).—*First* (£1) to H. S. Barter. *Second* (15s.) to W. J. Goodrich. *Third* (12s. 6d.) to F. J. Rutherford. *Fourth* (10s.) to W. Pond.

Class 135.—Six Jars of Extracted Dark-coloured Honey, excluding Heather Honey (1 lb. each approximate weight).—*First* (£1) to H. S. Barter. *Second* (15s.) to R. Edmondson. *Third* (12s. 6d.) to J. Fisher. *Fourth* (10s.) to N. F. James.

Class 136.—Six Jars of Granulated Honey, excluding Heather Honey (1 lb. each, approximate weight).—*First* (£1) to A. Underwood. *Second* (15s.) to W. J. Goodrich. *Third* (12s. 6d.) to Lady Farm Apiary. *Fourth* (10s.) to W. H. Thompson.

Class 137.—Six Jars of Extracted Heather Honey (1 lb. each, approximate weight).—*First* (£1) to J. Fisher. *Second* (15s.) to Lady Farm Apiary. Third (12s. 6d.) to R. Edmondson. *Fourth* (10s.) to H. S. Barter.

Class 138.—Six Jars of Granulated Honey (3 each of 1 lb. (squat) and ½-lb.) (standard jars approved by the Ministry of Agriculture and Fisheries). National Mark Labels to be attached. Open only to authorised packers of National Mark honey. *First* (£2) to A. Underwood. *Second* (£1 10s.) to H. S. Barter. *Third* (£1) to W. Slinger. *Fourth* (15s.) to W. J. Goodrich

Class 139.—Three Sections of Honey, packed in standard cartons (approved by the Ministry of Agriculture and Fisheries) or cellophane wrappers. National Mark Labels to be attached. Open only to authorised packers of National Mark honey. *First* (£2) to H. S. Barter. *Second* (£1 10s.) to Lady Farm Apiary. *Third* (£1) to A. Underwood. *Fourth* (15s.) to N. F. James.

Class 140.—Six Sections of Comb Honey, excluding Heather Honey (size 4¼ by 4¼), approximate weight, 1 lb. each. *First* (£1) to H. S. Barter. *Second* (15s.) to C. V. Byrne. *Third* (10s.) to W. Salmon.

Class 141.—Six Sections of Heather Honey (size 4¼ by 4¼) (approximate weight, 1 lb. each).—*First* (£1) to H. S. Barter. *Second* (15s.) to F. J. Rutherford. *Third* (10s.) to N. F. James.

Class 142.—Display of Honey and Honey Products, of any year staged in the most attractive form on a space 3 feet by 3 feet, and height not to exceed 4 feet above the table. The Products not including Mirrors or Sheet Glass to be above 50 lbs. but not exceeding 100 lbs. in weight. (No flowers allowed).—*First* (£5) to H. S. Barter. *Second* (£2) to Lady Farm Apiary. *Third* (£1) to A. Underwood.

Class 143.—One Shallow-Frame of Comb Honey, suitable for extracting. *First* (15s.) to A. Underwood. *Second* (10s.) to H. S. Barter. *Third* (7s. 6d.) to N. F. James.

Class 144.—Exhibit of not less than 2 lbs. of Bees' Wax, in not more than two cakes, the produce of the Exhibitor's apiary: extracted and cleaned by the Exhibitor or his assistants. *First* (15s.) to H. Pilditch. *Second* (10s.) to C. V. Byrne. *Third* (7s. 6d.) to H. S. Barter.

Class 145.—Interesting and Instructive Exhibit of a Practical or Scientific Nature connected with Bee Culture (not mentioned in the foregoing classes). *First* (15s.) to Lady Farm Apiary for articles of food made from honey and wax. *Second* (10s.) to H. S. Barter for articles of food containing honey and wax.

INVENTIONS, &c.

CLASS 146.—ANY NEW APPARATUS OR INVENTION relating to the Dairy Industry, or one showing distinct and practical improvement especially as to saving of labour, not eligible for competition in any other Class and not previously having received and award at any Show of the British Dairy Farmers' Association.—Silver Medal to Dairy Supply Co., Ltd., for "Alfa-Laval" semi-enclosed gravity-feed power cream separator. Bronze Medal to J. J. Blow, for "Homeland-Sunshine" compressed filter medium.

The following four classes (147 to 150) are provided for equipment designed for the steam sterilization of dairy utensils on the farm. The equipment must provide hot water, and sterilization must be effected in a chest at a temperature of 210° F for a period of not less than 10 minutes.

Price and facilities for renewal of parts will be taken into account by the Judges.

CLASS 147.—COAL-FIRED BOILER with chest of not more than 30 and not less than 15 cubic feet capacity.—*First* (£3 and Silver Medal) to J. W. Woolley & Co., for "Clifton" safety boiler.

CLASS 148.—COAL-FIRED BOILER with chest of more than 30 cubic feet capacity. —*First* (£3 and Silver Medal) to Dairy Supply Co., Ltd., for type "D" "Desco" sterilizing outfit. *Second* (£2 and Bronze Medal) to Wessex Supplies, Ltd., for "WXI" high pressure boiler and Wessex super chest.

CLASS 149.—OIL OR GAS-FIRED OUTFITS with chest of not less than 15 cubic feet capacity.—*First* (£3 and Silver Medal) to Halliday Boilers, Ltd., for patent pump-fed super-heated boiler and chest.

CLASS 150.—ELECTRICALLY-HEATED OUTFITS with chest of not less than 15 cubic feet capacity.—*First* (£3 and Silver Medal) to J. W. Woolley & Co., for "Clifton" electric sterilizing and water heating outfit. *Second* (£2 and Bronze Medal) to Boucher-Giles & Co., Ltd., for No. 2 Reform electric sterilizing outfit.

CLASS 151.—GENERAL PURPOSE POULTRY HOUSE suitable for small farmers. *First* (£2 and Silver Medal) to D. McMaster & Co., for "Master" combined slatted floor and intensive house.

CLASS 152.—OUTDOOR CHICKEN BROODER suitable for small farmers.—*First* (£2 and Silver Medal) to D. McMaster & Co., for 300-size improved "Sawyer" patent outdoor brooder. *Second* (£1 and Bronze Medal) to Ellis Brooder Co., for brooder made under the Ellis Brooder Patent.

JUNKET-MAKING CONTESTS.

THE "DAILY MAIL" PERPETUAL CHALLENGE BOWL (presented by the PROPRIETORS OF THE "DAILY MAIL") for the Champion Junketmaker.—Awarded to Miss N. M. Paull.

CLASS 153.—JUNKET MADE WITH MILK.—Open only to those who have never won a First Prize for Junket-making at any Shows of the British Dairy Farmers' Association.

SECTION A.—*First* (£2) to Miss B. Evans. *Second* (£1) to Miss E. L. Tunkiss. *Third* (10s.) to Miss J. Colwill.

SECTION B.—*First* (£2) to Miss L. Rogers. *Second* (£1) to Miss M. Jamieson. *Third* (10s.) to Miss W. M. Sweetland.

SECTION C.—*First* (£2) to Miss L. Smith. *Second* (£1) to Miss B. P. Jones. *Third* (10s.) to Miss M. W. Gwennap.

SECTION D.—*First* (£2) to Miss R. James. *Second* (£1) to Miss I. G. Roach. *Third* (10s.) to Miss P. Paull.

CLASS 154.—CHAMPION CONTEST.—Open to First Prize Winners in the Sections of the preceding Class and to First Prize Winners at previous Shows of the British Dairy Farmers' Association, Champion of any year excepted.—*Prize* (" Daily Mail " Challenge Bowl and Silver Medal) to Miss N. M. Paull.

BUTTER-MAKING CONTESTS.

THE " DESBOROUGH " PERPETUAL CHALLENGE CUP (presented by LORD DESBOROUGH, K.G., G.C.V.O.), for the Champion Buttermaker. —Awarded to Mrs. J. Mogford.

CLASS 155.—Open to those who have never won a Prize prior to September 7th, 1936, at any Show, wherever held.

SECTION A.—*First* (£4) to Miss B. D. Jones. *Second* (£3) to Miss M. Jones. *Third* (£2) to Miss M. Tapp. *Fourth* (£1) to Miss E. E. Jones.

SECTION B.—*First* (£4) to Miss E. J. Morgan. *Second* (£3) to Miss N. Thomas. *Third* (£2) to Miss A. McCarthy. *Fourth* (£1) to Miss M. Barrett.

CLASS 156.—Open to Students who have attended Classes at the British Dairy Institute, Reading, for not less than one month, during the past two years. —*First* (£4) to Miss E. C. Burgess. *Second* (£3) to Miss N. C. Scriven. *Third* (£2) to Miss M. A. Blore. *Fourth* (£1) to Miss B. Thornborrow.

CLASS 157.—For Men and Women who have never won a First Prize at any Show of the British Dairy Farmers' Association since 1932.

SECTION A.—*First* (£4) to Miss P. Paull. *Second* (£3) to Mrs. M. A. Hawkins. *Third* (£2) to Miss M. Joslin. *Fourth* (£1) to Miss E. J. Morgan.

SECTION B.—*First* (£4) to Miss B. V. Jones. *Second* (£3) to Miss M. M. Olde. *Third* (£2) to Mrs. K. Bernard. *Fourth* (£1) to Miss D. M. Irvine.

SECTION C.—*First* (£4) to Miss M. K. Barker. *Second* (£3) to Miss P. Peer. *Third* (£2) to Mrs. E. G. Griffiths. *Fourth* (£1) to Miss M. Whitehouse.

SECTION D.—*First* (£4) to Miss A. M. Dingle. *Second* (£3) to Miss D. Edwards. *Third* (£2) to Miss P. Crump. *Fourth* (£1) to Miss M. Mill.

SECTION E.—*First* (£4) to Miss D. Browning. *Second* (£3) to Miss J. M. Olde. *Third* (£2) to Miss F. Lewis. *Fourth* (£1) to Miss M. Rogers.

SECTION F.—*First* (£4) to Miss N. M. Paull. *Second* (£3) to Mrs. E. V. Gully. *Third* (£2) to Miss I. G. Roach. *Fourth* (£1) to Miss D. M. Powell.

CLASS 158.—CHAMPION CONTEST.—Open to winners of first prizes in the section of preceding classes and at any of the last three Shows of the British Dairy Farmers' Association, Champion of any year excepted. *First* (" Desborough " Challenge Cup, £5 and Silver Medal) to Mrs. J. Mogford. *Second* (£3 and Bronze Medal) to Miss M. Hutton.

MILKERS' CONTESTS.

CLASS 159.—Open to Men and Women of 18 years and over.

SECTION A.—*First* (£5) to W. Stoker. *Second* (£4) to J. E. Roberts. *Third* (£3) to N. Crump. *Fourth* (£1) to J. V. Prestwood.

SECTION B.—*First* (£5) to Miss S. R. Salter. *Second* (£4) to Miss E. Prestwood. *Third* (£3) to Miss J. S. Holland. *Fourth* (£1) to J. Iceton.

SECTION C.—*First* (£5) to F. C. Nicholls. *Second* (£4) to G. J. Ephraim. Two equal *Third* (£2 each) to B. O. Parton and E. Blodwell.

SECTION D.—*First* (£5) to Miss K. Jones. *Second* (£4) to Miss A. Peel. *Third* (£3) to Mrs. D. Wheatley. *Fourth* (£1) to Miss G. A. Figg.

Class 160.—Open to Boys and Girls under 18 years.—*First* (£5) to Miss M. Rowlands. *Second* (£4) to Miss B. Evans. *Third* (£3) to D. D. Owen. *Fourth*(£1) to Miss N. Thomas.

Class 161.—Open only to Herdsmen attending Cattle at the 1936 Dairy Show. *First* (£4) to H. Nelson. *Second* (£3) to. R. W. Read. *Third* (£2) to J. Leach. *Fourth* (£1) to W. Dilling. *Fifth* (10s.) to C. Hodgkin. *Sixth* (5s.) to Miss B. Oakes.

Class 162.—Champion Contest.—Open to winners of first prizes in the sections of Class 159 and Classes 160 and 161. Also to first prize winners at the 1935 Dairy Show of the British Dairy Farmers' Association. Champions of any year excepted.—*First* (Cup, Gold Medal and £2) to Miss K. Jones. *Second* (Silver Medal and £1) to R. Walley.

COW JUDGING CONTEST.

Class 163.—Open to Teams of Students from Agricultural Colleges, Farm Institutes, and/or County Councils. *Prize* (British Dairy Farmers' Association's Challenge Cup) to Studley College. Silver Medals to Miss A. M. Frew, Miss M. Kitchin and Miss J. R. Skinner—Members of winning team. Bronze Medals to P. Bazley, P. Giles and G. Southwood—Members of Devon County Agricultural Committee's team, placed second.

LIST OF JUDGES AT THE 1936 DAIRY SHOW

MILKING TRIALS.

S. Bartlett, National Institute for Research in Dairying, Shinfield.
T. J. Drakeley, Ph.D., M.Sc., F.C.S., F.I.C., 28, Russell Square, W.C.1.
J. Mackintosh, National Institute for Research in Dairying, Shinfield.
E. W. S. Press, B.Sc., A.I.C., F.C.S., 252, Caledonian Road, N.1.

BUTTER TESTS.

R. H. Evans, B.Sc., Barclays Bank Chambers, Pwllheli, North Wales.
J. G. W. Stafford, The Midland Agricultural College, Sutton Bonington.

BLEDISLOE CHALLENGE TROPHY.

W. Nixon, Great Pinley, Claverdon, Warwick.

SUPREME INDIVIDUAL CHAMPIONSHIP CHALLENGE TROPHY.

W. Wilkins, Central Farm, Long Marston, Tring, Herts.

CATTLE.

Shorthorn (Pedigree).

Capt. W. Briggs, Littlecote, Petworth, Sussex.
Robert N. Tory, Anderson, Blandford, Dorset.

Shorthorn (Non-Pedigree).

J. H. Salmon, Dove House Farm, Hough, Crewe.

Lincolnshire Red Shorthorn.

Robert Chatterton, Welbourn Hall, near Lincoln.

British Friesian.

James Forshaw, Hillside, Sutton-on-Trent.
W. Turner, Newlands, Norton, Worcester.

South Devon.

J. L. Cornish, East Charleton, Kingsbridge, South Devon.

Red Poll.

Sam Woodiwiss, Sedgemere, Great Waltham, near Chelmsford.

Welsh Black.

Moses Griffith, Pwlpeiran, Devil's Bridge, Cardiganshire.

Ayrshire.

Lord Rowallan, Rowallan, Kilmarnock.

Guernsey.

C. Richardson, 57, St. Cross Road, St. Cross, Winchester.

Jersey.

K. A. Latter, Weald Place, Sevenoaks.

Kerry.

H. St. G. Voules, Elmhurst Farm, Slinfold, Sussex.

Dexter.

Major E. S. Woodiwiss, Woodrooffe, Danbury, Essex.

GOATS.

Miss E. M. Gresley Hall, Chestnut Tree House, Willersey, Broadway, Worcs.

CHEESE.

The "Lonsdale" and Ayrshire Agricultural Association's Challenge Trophies.

ALEC TODD, British Dairy Institute, The University, Reading.

Stilton and Wensleydale.

W. MCNAIR, Long Clawson Dairy, Ltd., Long Clawson, Melton Mowbray.

Cheddar.

E. BENNETT, Messrs. Thompson & Collins, Bridgwater, Som.
P. L. BROWNSEY, Messrs. Cary & Son, Ltd., Shepton Mallet, Som.
E. F. EDWARDS, Messrs. John Gardner (London), Ltd., 211, Long Lane, Bermondsey, London, S.E. 1.
W. MCFADZEAN, Messrs. A. McLelland & Son, Ltd., Kilmarnock.

Colonial Cheddar.

F. S. TOPE, Army and Navy Stores, Ltd., 105, Victoria Street, London, S.W.1.

Cheshire.

B. W. FURBER, Messrs. Furber & Hopley, Easton Street, Crewe.
T. JONES, c/o George Lewis, Market Drayton.
O. MANNING, Cholmondeley, Malpas.
E. PAKEMAN, Messrs. Etches, Smith, Cox & Co., Derby.

Ayrshire Dunlop.

T. GILLILAND, Scottish Co-operative Wholesale Society, Woodstock Street, Kilmarnock.

Leicester, Derby and Gloucester.

J. PATTINSON, Messrs. Austin, Hodgkinson & Co., County Stores, Market Head, Derby.

Lancashire.

J. COWPE, Inglewood, Goosnargh, near Preston.

Caerphilly.

MISS M. C. TAYLOR, Somerset Farm Institute, Cannington, near Bridgwater.

Small Hard Pressed and Inter-County.

MISS N. BENNION, Cheshire School of Agriculture, Reaseheath, Nantwich.

Cream and Unripened Soft.

MISS A. SHEPPARD, British Dairy Institute, The University, Reading.

COLLECTION OF PRODUCE.

MISS A. SHEPPARD, British Dairy Institute, The University, Reading.

BACON AND HAMS.

W. H. BUTT, Messrs. Butt's Stores, Bristol.

BUTTER.

2-lb. Classes.

MISS M. E. BLACK, Cheshire School of Agriculture, Reaseheath, Nantwich.
MISS E. M. BLACKBURN, Cumberland and Westmorland Farm School, Newton Rigg, Penrith.
MISS E. BRAY, Agricultural Department, Bradninch Hall, Castle Street, Exeter.
MISS E. PRITCHARD, Department of Agricultural Education, County Buildings, Worcester.

Commercial.

L. CLASSEY, Messrs. Aplin & Barrett, Ltd., 33, Park Road, Battersea Park, London, S.W. 11.

Fancy and Ornamental.

MISS E. BRAY, Agricultural Department, Bradninch Hall, Castle Street, Exeter.
MISS A. O'BRIEN, Editorial Department, Northcliffe House, London, E.C.4.

BUTTER—*continued.*

Colonial, Salted.

E. S. BARRETT, Messrs. Aplin & Barrett, Ltd., 33, Park Road, Battersea Park, London, S.W.11.
W. G. OAKEY, Messrs. Spear Bros., & Clark, Ltd., 36, Victoria Street, Bristol, 1.

Colonial Unsalted.

W. J. JONES, Messrs. Barrows Stores, Ltd., Corporation Street, Birmingham, 2.
G. SUTHERLAND THOMSON, 31, Tooley Street, London, S.E. 1.

CREAM.

MISS A. A. PRICHARD, Midland Agricultural College, Sutton Bonington.

BOTTLED FRUITS, VEGETABLES AND JAMS.

MISS J. FERGUSON, University of Bristol, Research Station, Long Ashton, Bristol.

HONEY AND WAX.

W. HERROD-HEMPSALL, 23, Bedford Street, London, W.C.2.

INVENTIONS.

C. N. GOODE, The Croft, Bedford Road, Rushden, Northants.
J. MACKINTOSH, National Institute for Research in Dairying, Shinfield.
F. H. PAGE, Woodlands, Great Horkesley, Colchester.
J. G. STAPLETON, Owles Hall, near Enfield, Middlesex.

JUNKET-MAKING CONTESTS.

MISS F. COWARD, Park House Farm, Barrow-in-Furness.

Championship Class.

MRS. W. L. DANIEL, Gweal-an-top, Redruth, Cornwall.

BUTTER-MAKING CONTESTS.

MRS. E. LANSDOWNE, Common Farm, Uffington, Faringdon.
MRS. H. M. LLEWELYN, 61, Roath Court Road, Cardiff.

Championship Class.

R. H. EVANS, Barclays Bank Chambers, Pwllheli, North Wales.

MILKERS' CONTESTS.

O. BENNION, Brassey Hall, Willaston, Nantwich.
MISS A. S. PRICE, Agricultural Education Committee, County Offices, Haverfordwest.

COW JUDGING CONTEST.

A. G. ANDREWS, Lilies Farm, Weedon, Aylesbury, Bucks.
R. WIGHTMAN, Dorset County Council, Wadham House, Dorchester.

THE OBJECTS OF THE BRITISH DAIRY FARMERS' ASSOCIATION

In 1876 the British Dairy Farmers' Association was founded by a small group of men who realised the need for an Association to stimulate interest in the development of the industry, and to guide its progress along lines suitable to the needs of the milk producer and manufacturer of dairy produce. In 1879 the Association was incorporated under licence of the Board of Trade, and since that date it has expanded its activities in every direction and has become the premier organisation existing for the advancement of the dairy industry.

The original Memorandum of Association states that the objects for which the Association is established are "to improve the dairy stock, the dairy produce and the dairy industry of this country, and to do all such further acts and things as shall be conducive to their interests."

In pursuance of these objects the Association has introduced new schemes and extended its influence in numerous directions, and a brief summary of the chief of these is given below :—

The Dairy Show.

The first Dairy Show was held at the Agricultural Hall, Islington, in 1876. Classes were provided for dairy cattle, goats, cheese, butter, dairy appliances, poultry and pigeons, grain and hops. The total number of entries was 928. This new venture was an immediate success, and Shows have since been held annually with the exception of the years 1916 to 1918. Classes are now provided for the principal breeds of cattle and goats ; varieties of cheese ; butter ; bacon and hams ; bottled fruits ; honey ; poultry and pigeons ; also for butter-making, junket-making and cow-judging. The Milking Trials for cows inaugurated in 1879 and the Butter Tests (1886) have gradually developed in importance and interest and are now recognised as the premier and most complete competitions of their kind in the country. Bacon classes were first provided in 1883 and have been increased and amended to suit current conditions. Competitions for hand milkers are also held during the Show, and the conditions of entry are designed to attract winners of county competitions and to improve the efficiency of milkers throughout the country. More recently cow-judging contests have been organised for teams from Agricultural Colleges, Farm Institutes, &c., and from Young Farmers' Clubs. These competitions constitute attractive features during the later days of the Show. In recent years the total number of entries at the Show has sometimes been over 10,000, and cash prizes and trophies to the approximate value of £6,000 are now offered annually. It may now be claimed that the London Dairy Show is the chief competitive and social event of the year for British Dairy Farmers.

The British Dairy Farmers' Association Journal.

One of the first actions of the Council of the Association was the publication of a Journal containing original articles on subjects of interest to all sections of the industry, and reports of the Dairy Show and other activities of the Association. In the early years the Journal was published in two or four parts each year, but since 1899 it has been issued annually, and in its present form constitutes an indispensable annual addition to the bookshelves of every progressive dairy farmer.

Dairy Education.

(*a*) *The British Dairy Institute.*—When the Association was formed facilities for practical and scientific instruction in cheese-making and butter-making were almost non-existent. The Council realised that the development and adoption of the best methods on the farm would be materially enhanced by the establishment of a well-equipped dairy school, and in 1888 the British Dairy Institute was brought into existence at Aylesbury. In 1896, to provide fuller instruction in the sciences associated with dairy practice, an agreement was made with the University College of Reading (now the University of Reading) whereby the Institute was moved from Aylesbury to Reading and placed under the management of a Committee representing the Association and the University College. In 1910 a new Institute, with better equipment and accommodation for a larger number of students, was erected within the grounds of the College; further additions have been made from time to time, and for many years now the British Dairy Institute has been recognised as the leading centre for dairy education in England and Wales.

(*b*) *The British Dairy Farmers' Association Diplomas and Certificates.*—Since 1887 diplomas and certificates in the science and practice of dairying have been awarded on the results of examinations at the British Dairy Institute. In 1893 it was decided that examinations for certificates of proficiency in the science and practice of cheese-making and butter-making should be held at other centres throughout the country, and at the present time such examinations are conducted at six other dairy schools in different parts of England. By the institution of this scheme, whereby the Association appoints independent examiners and maintains the standard of proficiency, the educational work in dairying has been extended and improved in a highly satisfactory manner.

(c) *The National Dairy Examination Board.*—The development of dairy education in England and Scotland from about 1900 onwards had led to an unnecessary duplication of diplomas in dairying, and in 1928 it was decided that the British Dairy Farmers' Association should cease to award its own diploma and should join with the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland in the formation of the National Dairy Examination Board. This Board, consisting of an equal number of members from the three parent societies, now controls and awards the National Diploma in Dairying (N.D.D.).

Dairy Research.

From time to time since its formation the Association has assisted research work on problems arising in the production and manufacture of dairy produce. When the National Institute for Research in Dairying was created and began to plan its programme of research work after the war, the Association took a keen interest in its development and from time to time gave valuable financial assistance. The co-operation between the Association and the Institute has been facilitated by the presence of a member of the Council on the Board of the Institute and by the presence of one or more members of the staff of the Institute on the Council of the Association. By this co-operation and in other ways, the Association has maintained and developed its interest in research work for the improvement of the methods adopted in the practice of milk production and the manufacture of dairy produce.

Dairy Conferences and Congresses.

The Association has also organised numerous conferences and tours in different parts of the British Isles and abroad in order that subjects of special interest could be studied in detail and first-hand information obtained in new methods. These conferences have also enabled members to combine business with pleasure ; to make new friends and to acquire knowledge of other practices which could not be obtained so easily or economically by private efforts.

The World's Dairy Congress, held in England in 1928, was planned and brought to a successful conclusion mainly through the efforts of the Association. Thereafter the Association was asked by a General Committee representing the Dairy Industry of this country, to act, when necessary, on behalf of the industry as the central agent for Great Britain in connection with future World Dairy Congresses. In this capacity the Association organised the representation of this country at the Congresses held in Denmark in 1931 and in Italy in 1934. The Association is also represented on the committee of the Internationale Federation de Laiterie. This committee meets from time to time to consider dairying subjects of international interest and to decide the venue of future World Congresses.

Medal Scheme.

Soon after its formation the Association encouraged the exhibition of high class dairy stock and produce at provincial shows by offering medals as special awards, and in 1913 the medal scheme was initiated in its present form. This scheme is designed to stimulate improvements in dairy stock and produce throughout the country, by the award of silver and bronze medals through county and local societies under specified conditions. The medals are available for exhibits of dairy cattle, cheese and butter and as special awards in dairy herd, clean milk and milking competitions. Some 70 medals are allocated each year and these are competed for in some 30 counties in England and Wales. This scheme enables the Association to recognise merit and to assist and encourage those engaged in different branches of the production side of the industry in a manner which is widely appreciated.

Dairy Equipment and New Inventions.

Since the first Show classes have been provided for dairy appliances and apparatus and for new inventions of interest to the dairy industry. After several years classes for equipment were discontinued, but space was made available where manufacturers and others could display goods and visitors could inspect them. During recent years the great increase in the use of mechanical equipment in all branches of the industry has made this section of the Show much more important. To meet this need the Council recently rearranged the layout of exhibits in the Halls, and a larger proportion of floor space is now allotted for the display of dairy and poultry appliances and kindred exhibits.

In the new inventions competition the gold, silver and bronze medals awarded by the Association are highly prized. The conditions of entry have recently been revised to require submission of the entries some months before the Show in order that those of a more complex nature might be inspected in actual operation at a farm or dairy. Reports on the practical efficiency of such entries are prepared by the Association's representatives for consideration by the judges when inspecting the entries at the Show. By this system the risk of giving of awards to ingenious and attractive, but unpractical apparatus and appliances is guarded against, and buyers can be sure that these entries which have obtained the Association's awards are reliable and efficient.

Poultry and Pigeons.

Classes for Poultry and Pigeons were provided at the first Dairy Show in 1877, and have always been a popular feature. As the years passed, this section of the Show greatly increased in size and popularity, and it is now recognised as one of the most important shows of its kind in the country. Over 30 breeds of poultry, ducks, geese and turkeys, and 34 breeds of pigeons were represented at recent shows. The organisation of this section of the Association's work is in the hands of a Poultry and Pigeon Committee, which consists of members of the Council and a few others co-opted to represent definite poultry and pigeon interests.

Other Activities.

In addition to the work briefly described herein, the Council of the Association at its monthly meetings is continually surveying the general progress of the industry and gives special attention to those points where action, either direct or through its various committees, appears to be necessary or desirable. In recent years resolutions concerning the prohibition of preservatives in cream, tariffs on imported dairy produce, the pasteurisation of milk by local authorities and standards for British cheese and for cream have been passed and forwarded to the appropriate Government Departments.

ADVANTAGES OF MEMBERSHIP

Members of the Association receive the following privileges :—

1.—A free pass to all the Association's Dairy Shows, available each day during the Exhibition, with the privilege of admitting free (by ticket) a friend on any one day.

2.—The privilege of participating, at specially low charges, in the Dairy Conferences organised by the Association at home or abroad.

3.—The Exhibition of Live Stock, Dairy Produce, and Utensils (for competition) at a reduced scale of fees to Life Members, and to Annual Members subscribing £1 per annum whose subscription for the past year and current year is paid. A reduction of 10 per cent. is allowed to Standholders whose Membership is of 3 years standing.

4.—A copy (free by post) of the *Journal* of the Association, published annually.

5.—Analyses by the Analytical and Consulting Chemist, at low fees, of samples of milk, cream, butter, cheese, feeding stuffs, water, soil, manures, &c., and advice on dairy matters connected with his department.

6.—Bacteriological examination of dairy produce, &c., at reduced fees.

7.—Examination by the Consulting Pathological Bacteriologist for particular pathogenic or disease-producing organisms.

8.—Professional advice and assistance at a reduced scale of charges in any case of disease among the live stock of the farm.

The Annual Subscription is £1, but Dairy Instructors and Students and full-time Secretaries and Recorders of Milk Recording Societies are admitted on payment of 10s. 6d. per annum. The latter sum entitles Members to all privileges, except the reduced fees for exhibition at the Shows. The Life Membership fee is £15.

The Council have every confidence in appealing to agriculturists of all classes and to dairy farmers in particular, to become members of the Association.

Members' Chemical Privileges

Free Analysis.—Each member, whose subscription for the current year is paid, is entitled to one analysis of a dairy product (paragraphs 1 to 8 below) free of charge. A stamped addressed envelope must be forwarded with the sample for the return of the report of the analysis.

Further analyses will be made by the Association's Consulting Chemist at the following reduced fees :—

1.—MILK (Fresh).	£	s.	d.
Estimation of Fat and Total Solids	0	1	0
Estimation of Fat, Casein, Albumen, Sugar, and Ash ...	0	10	0

2.—MILK (Sour).			
Estimation of Fat and Total Solids	0	5	0
3.—SKIMMED MILK.			
Estimation of Fat and Total Solids	0	5	0
4.—CONDENSED MILK.			
Estimation of Fat	0	5	0
Estimation of Fat, Casein, and Solids	0	10	0
Estimation of Cane Sugar (extra)	0	5	0
5.—CREAM.			
Estimation of Fat	0	5	0
Estimation of Fat, Casein, and Solids	0	12	6
Examination for Foreign Fats (extra)	0	10	0
6.—BUTTER.			
Estimation of Water, Fat, Casein, and Ash	0	10	0
Examination for Foreign Fats (extra)	0	10	0
7.—CHEESE.			
Estimation of Water, Fat, Casein, and Ash	0	10	0
Examination for Foreign Fats (extra)	0	10	0
8.—RENNET.			
Examination of Strength	0	5	0
9.—CAKES AND MEALS.			
Estimation of Oil only	0	5	0
Estimation of Oil, Albuminoids, Carbo-hydrates, &c.	0	15	0
10.—GRASS, SILAGE, ROOTS, &c.			
Estimation of Oil, Albuminoids, Carbo-hydrates, &c.	1	10	0
11.—MANURES.			
Estimation of Soluble Phosphoric Acid	0	5	0
Estimation of Soluble and Insoluble Phosphoric Acid	0	7	6
Estimation of Citric Soluble Phosphoric Acid	0	7	6
Estimation of Nitrogen	0	5	0
Estimation of Potash	0	7	6
12.—SOIL.			
Estimation of Lime	0	5	0
Analysis and Report	2	2	0
13.—WATER.			
Analysis for Drinking or Dairy Purposes	1	1	0
14.—CIDER AND FERMENTED DRINKS.			
Estimation of Alcohol	0	7	6
Estimation of Alcohol, Sugar, Acidity, &c.	0	15	0
15.—PRESERVATIVES.			
Examining a Substance for Boracic Acid or Salicylic Acid, &c., for each Substance sought	0	2	6
Estimation of the quantity of Boracic Acid	0	10	6
16.—CONSULTATIONS AND REPORTS ON SUBJECTS, BY ARRANGEMENT.			
For Letter in reply to Enquiry	Free		

NOTE.—The Consulting Chemist will be prepared to quote reduced terms to members requiring a number of analyses at frequent intervals.

Instructions for Taking Fair Samples for Analysis.

Dairy Produce.—Milk should be sent in a well-corked 8-oz. clear bottle. The milk should quite fill the bottle. Butter or cheese, about 8 ounces; the former in a gallipot well tied down.

Soils.—A block of soil about four or five inches square, and nine inches deep, should be sent in a strong box by rail.

Artificial Manures.—Take a handful of manure out of at least half a dozen bags, mix these rapidly and thoroughly, breaking down all lumps. Forward about a pound of the mixture in a tin box, and retain the remainder. Samples of manure should be sent immediately after the delivery of the bulk. All manures should be bought subject to analysis.

Feeding Materials.—Feeding cakes, meals, or grains: about a pound should be sent in a bag or box. Grass and hay: a bundle of a few pounds weight. Silage: a six-inch cubic block, packed closely in a box to keep it compressed.

Waters.—A Winchester quart glass-stoppered bottle should be procured from a druggist, well washed out with the water, then completely filled, the stopper tied securely down, and the bottle packed in a box and sent by rail.

N.B.—In order to prevent disappointment, the Chemist requests that, as far as possible, Members desiring to hold a personal consultation should make an appointment by letter. Between 10 and 4 are the hours most convenient. All communications intended for the Analytical and Consulting Chemist must be addressed direct to Dr. T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.I.R.I., F.C.S., 28, Russell Square, London, W.C. 1.

All samples should be sent by the speediest method possible. They ought not to arrive either on Saturday or Sunday.

Members' Bacteriological Privileges

Samples of dairy produce, &c., submitted for a bacteriological count, or for examination for Bacillus Coli, &c., should be forwarded to Dr. T. J. Drakeley, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I., 28, Russell Square, London, W.C. 1.

Bacteriological Examination of "Certified." "Grade A," or "Pasteurised" Milk under the Milk (Special Designations) Order, 1922	10s. 6d.

Examinations for Pathogenic Organisms.

By arrangement with the National Institute for Research in Dairying, Shinfield, near Reading, samples to be examined for the pathogenic organisms mentioned below may be sent to Dr. A. T. R. Mattick (at the above address) who will supply on request the necessary sterile equipment with instructions as to the method of taking and dispatching samples. Members are asked to note that in the examinations for tubercle bacilli the method of animal inoculation will be used. This is the only reliable method, but except in special cases this method necessarily involves a delay of eight weeks before the report can be sent.

A similar delay **may** be involved when samples have to be examined for the presence of Br. abortus.

Examinations will be at the following fees :—

	£	s.	d.
MILK			
Examination for the presence of living tubercle bacilli or Br. abortus	1	1	0
CREAM, BUTTER AND CHEESE.			
Examination for the presence of living tubercle bacilli or Br. abortus	1	10	6

Members' Veterinary Privileges

Members of the Association who require professional assistance in any case of disease among their animals must apply direct to the Consulting Veterinary Surgeon, Professor G. H. Wooldridge, Royal Veterinary College, Camden Town, London, N.W. 1, whose scale of charges is as follows :—

	£	s.	d.
Personal Consultation	0	10	6
Post-mortem Examination and Report	1	1	0
Consultation by Letter	0	5	0
Visit and Report, in case of an outbreak of disease, in addition to personal and travelling expenses, per day	3	3	0

Members' Botanical Privileges.

Members may submit seeds and plants for botanical examination, and the following are a few of the special fees :—

No.	£	s.	d.
1.—A Report on the purity of a sample of seed	0	1	0
2.—A Report on the germinating power of a sample of seed ...	0	1	0
Nos. 1 and 2 together	0	1	6
3.—Determination of the species of any weed or other plant, or of any vegetable parasite, with a report on its habits, and the means for its extermination or prevention	0	1	0
4.—Determination of the species of a collection of natural grasses found in any district, with a report on their habits and pasture value	0	4	0

Instructions for Selecting and Sending Samples.

At least one ounce of grass and other small seeds should be sent, and two ounces of cereals or larger seeds. Grass seeds should be sent at least four weeks, and clover seeds two weeks before they are to be used. In collecting specimens of plants, the whole plant should be taken up and the earth shaken from the roots. If possible the plant should be in flower or fruit. They should be packed in a light box, or in a firm paper parcel. Specimens of diseased plants or of parasites should be forwarded as fresh as possible, either in a bottle, or packed in tinfoil or oil silk. All specimens should be accompanied with a letter specifying the nature of the information required, and stating any local circumstance (soil, situation, &c.) which, in the opinion of the sender, would be likely to throw light on the inquiry.

The proper fee should be sent with the letter concerning the sample to DR. T. J. DRAKELEY, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I., 28, Russell Square, London, W.C. 1.

BRITISH DAIRY INSTITUTE

THE British Dairy Institute was established at Aylesbury in 1888 by the British Dairy Farmers' Association. In order that students might have an opportunity of combining practical dairying with scientific instruction, the Institute was removed in 1896 to Valpy Street, Reading, and placed under a committee which now represents the British Dairy Farmers' Association and Reading University. The Institute at present occupies buildings on the University site in London Road, Reading (the side entrance to the Institute is in Redlands Road).

The Institute contains milk-receiving, buttermaking and milk-testing rooms ; rooms for the manufacture of pressed, unpressed, and soft cheeses ; and ripening rooms for the different varieties of cheese. It is equipped with the best modern apparatus for the manufacture of dairy produce, including power driven separating and buttermaking plant ; and cold storage, ice cream and pasteurizing plants.

The Institute is open in each year from the last Friday in January until the end of the autumn term (the middle of December). Courses at the Institute are open to men and women above the age of 16 years, and all students admitted are thereby subject to University regulations. Except for recognised courses, students may join at any time which the Institute is open, and for any period not less than a week.

Practical and theoretical instruction is given in all branches of dairying, and may be advanced, elementary, or specialised, according to requirements. The manufacture of hardpressed and soft cheeses is taught throughout the time the Institute is open, but Stilton and other blue-veined varieties are not made until May. Instruction is also given in buttermaking, the management of various types of separators, the handling and care of milk, the preparation of starters, &c.

Lectures and demonstrations are usually given in the afternoons, the mornings being devoted to practical work.

The following courses are open to students :—

B.SC., DAIRYING. Duration of course, three years.

First session of three terms—study for Intermediate Examination.

Two sessions—study for Pass Degree.

During the first year a month must be spent at the British Dairy Institute during the vacation following Summer term, and an additional month's experience obtained in a dairy factory. After qualification for the Pass Degree, distinction may be obtained by a further year of advanced work on a chosen subject, and by passing the final examination Reading University.

DIPLOMA IN DAIRYING.

Duration of course two years, exclusive of six months' practical farm experience. Fees £35 first year, £41 second year.

NATIONAL DIPLOMA IN DAIRYING (National Diploma Examination Board).

Duration of course two years, exclusive of six months' spent on a dairy farm recognised by the Board. The examination is held in September, and can be taken by students who have followed the Reading University Dairying Diploma course.

CERTIFICATE IN DAIRYING.

Duration of course six months (March—September). This course is suitable for students who wish to qualify for the British Dairy Farmers' Association certificates in butter and cheesemaking (the latter requires an additional six months' cheesemaking experience). Fees £21.

Short courses in practical and theoretical dairying are given by arrangement with the British Dairy Institute. Fees, Cheesemaking 25s. per week ; Buttermaking 12s. 6d. per week.

The full syllabus of courses, details of residence, regulations, uniform, &c., can be obtained on application to the Secretary, British Dairy Institute, Reading.

British Dairy Farmers' Association

Sixty-first Half-Yearly Report of the Council presented to the Members at the Meeting held at the Dairy Show, Royal Agricultural Hall, Islington, London, N. 1, on Wednesday, October 21st, 1936.

DAIRY SHOW.

It will be observed from the attached comparative statement, that the entries for the 1936 Dairy Show are again exceedingly satisfactory, and all sections have been well supported. While the classification for Cattle remains unaltered, your Council has reviewed the prizes offered in previous years and in view of the heavy expense incurred by exhibitors, decided to place all Breeds upon the same basis, thus increasing the total amount of prize money by approximately £200.

In the Produce Section, as the class provided for Factory Cheese last year mainly consisted of entries of Cheddar and Cheshire, your Council agreed to give one class this year for each of these varieties only. It has also provided a new class for White Wensleydales.

The classification for Butter, Cream, Bacon, Hams and Honey remains unaltered.

To encourage the Fruit Farmer, your Council has provided a class in the Bottled Fruit Section for bottles of pure natural fruit juices free from any synthetic ingredient and produced from fruit grown in the United Kingdom, and seven entries have been received.

In the Section for New Inventions your Council has provided four classes for equipment designed for the steam sterilization of dairy utensils on the farm and these have been well supported.

Your Council has been fortunate in securing the following new Challenge Trophies :—

The " Melvin " Cup (presented by Sir Martin Melvin, Bart.) for the Dairy Shorthorn Cow or Heifer gaining the greatest number of points on Inspection, in the Milking Trials and Butter Tests. The animal to have been bred by the exhibitor.

The " Jersey " Production Trophy (presented by Dr. H. and Miss Corner) for the Jersey Cow or Heifer gaining the greatest number of points in the Milking Trials and Butter Tests.

The "Delamere" Trophy for the best Saanen Goat or Goatling on Inspection.

The Ayrshire Agricultural Association's Trophy (presented by Lord Rowallan) for the best exhibit of Scottish Farmhouse Cheese.

The applications received in connection with the non-competitive Section have again been heavy and it is gratifying to report that all available stand space has been let. Exhibitors will be able to place before the visitors to the Show a most comprehensive range of dairy machinery and utensils in the Main Hall and Poultry Appliances in the Galleries.

Your Council is most pleased to notify the Members that the Rt. Hon. The Lord Mayor of London and the Lady Mayoress have kindly consented to visit the Dairy Show on Tuesday morning. Also that the Corporation of the City of London has again generously presented three Champion Cups for competition in the Cheese and Butter Sections.

MILK BAR.

In view of the success of the Milk Bar as provided last year, the National Milk Publicity Council has agreed to undertake the arrangements for 1936, and milk shakes in various flavours can be obtained.

PRESIDENT.

It is most gratifying to the Council to inform the Members that Lord Eltisley, whose keen interest in the dairying industry is so well known, has kindly consented to allow his name to go forward as President for 1937. His Lordship was Chairman of the National Agricultural Council of England and Wales during 1922 and 1923, and Chairman of the House of Commons Agricultural Committee. Your vote will therefore be asked in support of his Lordship's candidature.

VICE-PRESIDENTS.

The following list of Vice-Presidents has been prepared and your approval will be sought for their election :—

The Earl of Iveagh, C.B., C.M.G.
The Earl of Lonsdale, K.G., G.C.V.O.
The Viscount Bledisloe, P.C., G.C.M.G., K.B.E.
Major The Lord O'Hagan.
The Lord Desborough, K.G., G.C.V.O.
The Lord Daresbury, C.V.O.
The Lord Rowallan.
S. Palgrave Page, Esq., J.P.
G. Titus Barham, Esq.
John Evens, Esq., J.P.

COUNCIL.

In accordance with the Articles of Association the following members retire this year, all of whom have been nominated and seconded for re-election :—

John Barnett.
Mrs. M. Bowes.
A. J. Clare.
Harold Corrie.
R. H. Evans.
W. J. Golding.
Sir Joseph Q. Lamb, M.P.
James Mackintosh.
T. Martlew.
Capt. W. A. Nell.
James Steel.
P. H. Worsley.

The following new candidates have been duly proposed and seconded :—

C. W. H. Glossop (Pedigree Cattle Breeder and Producer-Retailer), Yorkshire. Proposed by G. M. Strutt, seconded by F. W. Gilbert.

W. Rice (Retired), Essex. Proposed by Lord Daresbury, seconded by F. J. Broomhead.

J. W. Shirley (Farmer), Buckinghamshire. Proposed by R. Tustian, seconded by T. A. Rose.

G. Wills (Farmer), Devonshire. Proposed by W. Hunt, seconded by Miss D. A. Smith.

AUDITORS.

Mr. Herbert J. Page of Messrs. Kemp, Chatteris, Nichols, Sendell & Co., will be proposed as the Association's Chartered Accountant with Sir William E. Manchester, Mr. R. Wallace and Mr. P. Hay as Hon. Auditors.

MEMBERSHIP.

Whilst the Dairy Show brings its annual crop of new members it is felt that these represent but a small proportion of those within the Industry who should give their support to the Association, and the Council therefore appeal to all present members to make the advantages of Membership of the Association better known among their friends.

WORLD'S 11TH DAIRY CONGRESS, 1937.

At the conclusion of the International Dairy Congress held in this Country in 1928, the British Dairy Farmers' Association agreed to act on behalf of the British Dairy Industry in matters relating to future International meetings of this nature.

The Association has, accordingly, been notified by the German Bureau that the World's 11th Dairy Congress is to be held in Berlin during the period 22nd to 28th August, 1937. A programme will be sent to all Members as soon as received from the German Authorities.

THE FOLLOWING TABLE GIVES COMPARATIVE DETAILS OF THE ENTRIES AT THE DAIRY SHOW WITH THOSE OF THE PAST TWELVE YEARS.

	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.
Cattle	473	470	449	449	366	356	390	382	344	348	427	421	424
Milking and Butter Tests	718	700	693	737	563	547	628	612	589	581	678	664	711
Goats	72	48	78	68	53	90	80	105	141	120	106	84	70
Poultry	4,498	4,355	4,352	3,888	3,642	3,432	3,395	3,314	3,037	2,933	3,016	3,103	2,678
Pigeons	3,027	3,094	3,180	3,098	3,083	2,959	2,655	2,616	2,396	2,611	2,471	2,559	2,606
Cheese	486	459	489	688	664	519	596	578	462	441	627	633	642
Bacon and Hams ...	113	95	95	105	103	95	120	64	99	76	81	100	107
Butter	483	420	430	488	476	391	413	438	354	297	279	308	257
Cream	30	47	30	43	47	43	64	59	42	37	47	54	51
Honey, &c.	102	53	65	56	88	111	95	85	76	116	152	114	98
Bottled Fruits and Vegetables	65	33	56	80	34	116	87	96	61	119	116	79	96
New and Improved Inventions	37	54	50	57	13	30	20	23	20	25	32	41	28
Roots	283	269	271	242	165	31	12	Noclass	Noclass	Noclass	Noclass	Noclass	No class
Butter Making Contests	154	130	131	155	124	152	152	143	124	128	146	167	150
Milkers' Contests ...	56	51	47	61	44	41	70	71	67	68	84	81	75
Junket-making Contests	33	27	28	38	36	31	42	40	40	50	42	45	53
Collection of Colonial Produce	1	2	—	—	—	—	—	Noclass	Noclass	Noclass	Noclass	Noclass	No class
Cow-Judging Contest ...	4	8	10	9	7	10	7	4	7	8	15	8	11
Collection of Produce ...	8	18	9	9	7	33	14	19	9	9	16	11	10
	10,643	10,333	10,464	10,271	9,515	8,987	8,840	8,649	7,841	7,967	8,335	8,472	8,067

SIXTY-FIRST ANNUAL REPORT OF THE COUNCIL

for the Year ended 31st December, 1936,

Presented to the General Meeting of Members on Wednesday, April 7th, 1937

The Council at its meeting on the 5th February, 1936, sent a message of condolence to Her Majesty Queen Mary and the Royal Family upon the lamented death of King George V., who had honoured the Association with his Patronage throughout his Reign.

It was with pleasure that the Council received, in July, a letter from the Keeper of the Privy Purse that His Majesty King Edward VIII. had been graciously pleased to grant his Patronage to the Association. On the 14th December, 1936, a notification was received from the Privy Purse Office that His Majesty King George VI. is pleased to allow the Association to continue to show the Sovereign as its Patron during the present Reign.

The Council has also, unfortunately, to record the great loss sustained by the decease of the Earl of Dartmouth, Lord Strachie and Mr. W. A. Smith. The Earl of Dartmouth became a member of the Association in 1921 and held the position of President for that year. Thereafter his Lordship was elected a Vice-President, which position he retained until his death. Lord Strachie was elected a member of the Association in 1903, and during the same year acted as President. From 1904 until his death his Lordship was a Vice-President and throughout the whole period took a keen interest in the Association's activities. Although not a member of the Council, Mr. Smith had, for many years, been a valuable member of the Poultry and Pigeon Committee and a most active assistant at many Dairy Shows. His services will be sadly missed.

COUNCIL.

During the year the constitution of the Council has undergone four changes. Mr. H. G. Robinson was elected to fill the vacancy caused by the lamented death of Mr. W. Burkitt, and of the twelve members who retired in October in accordance with the Articles of Association, nine were re-elected, and Mr. C. W. H. Glossop, J.P., Mr. J. W. Shirley and Mr. G. Wills were upon the votes of the members the newly elected Councillors.

MEMBERSHIP.

During the year, 112 new members were enrolled but the Council regrets that the removal from the register of those whose subscriptions were three years in arrear should have reduced the membership below that of recent years. The total at the close of the year was 1,719, of whom 1,584 were annual, 125 life and 10 honorary members. As the income from membership is one upon which the Council depends to a large extent to carry on the Association's activities, it is in the interests of all engaged in the dairy industry to support the Association by becoming members, and thereby help to increase the already numerous activities undertaken on behalf of the great industry it represents. The Council, once again, urges members to interest their friends and secure a signature to the application form enclosed in this report.

THE DAIRY SHOW.

The result of the 58th Annual Dairy Show held at the Royal Agricultural Hall, London, N. on October 20th to the 23rd, under the Presidency of H.R.H. The Duke of Kent, K.G., proved a great success in every respect. The various sections were well supported and all the available space for non-competitive exhibits was occupied. Visitors to the Show, irrespective of members and exhibitors totalled 47,614. As detailed reports upon the several departments of the Show are appearing in Journal, Vol. XLIX. it is considered unnecessary to make further comments thereon in this report.

ACCOUNTS.

In accordance with the Articles of Association the Income and Expenditure Account together with a Balance Sheet for 1936, duly certified by our Chartered Accountant, is appended to this report.

EXAMINATIONS.

During the past year examinations have been held at the following six centres :—

Agricultural Institute, Usk, Monmouthshire.
British Dairy Institute, Reading, Berkshire.
Farm Institute, Sparsholt, Hampshire.
Seale-Hayne Agricultural College, Newton Abbot, Devon.
Somerset Farm Institute, Cannington, Somerset.
Studley College, Studley, Warwickshire.

In all 57 certificates for buttermaking and 50 for cheesemaking were awarded.

The 41st annual examination for students from English and Welsh centres for the National Diploma in Dairying took place in

September at the University and British Dairy Institute, Reading, and for students from Scottish centres at the Dairy School for Scotland, Auchincruive. At the English centre 85 candidates presented themselves and 30 were awarded the Diploma, including one who attained the Honours standard. At the Scottish centre 66 were examined of whom 40 candidates were successful.

MEDAL SCHEME.

Under the above scheme the following medals were awarded during 1936 :—

	Silver.	Bronze.
Dairy Cattle	11	2
Produce	2	5
Buttermaking	4	1
Milkers' Contests	6	5
Cow Judging Contests	1	2
Poultry Judging Contests	1	2
	25	17

DAIRY CONFERENCE.

A most successful conference and tour was held in Belgium from May 30th until June 10th, and a detailed report is appearing in Journal Vol. XLIX.

DRAFT MILK (SPECIAL DESIGNATIONS) ORDER, 1936.

The Council approved the following Resolutions received from the Grade " A " (T.T.) Milk Producers' Association regarding the draft Milk (Special Designations) Order :—

" That the special designations of milk should be :—

1. Certified—bottled on the farm with a higher bacteriological standard.
   Tuberculin Tested—raw, sent from the farm in bulk.
   Tuberculin Tested—pasteurized.
2. That the methylene blue reduction test should not be used until time has been allowed for its commercial use to be fully investigated and found satisfactory."

The Council appointed Mr. G. M. Strutt, Mr. H. G. Robinson and Mr. J. Steel to represent the Association at a meeting of interested Bodies with a view to a deputation waiting upon the Ministers of Agriculture and Health concerning the questions raised.

WARBLE FLY.

In 1929 the Leathersellers' Company formed a Committee consisting of representatives of agricultural bodies, county authorities, as well as of the leather trades, to investigate the problem of the warble fly pest and Mr. J. Mackintosh was appointed to represent the British Dairy Farmers' Association. On the 31st January last the Ministry of Agriculture issued the Warble Fly (Dressing of Cattle) Order and at the same time orders of a similar character were issued by the Ministries of Northern Ireland and the Irish Free State. Under the Order for Great Britain treatment of all visibly infested cattle is required by one of two alternative methods :—

1. With a dressing consisting of a Derris preparation at monthly intervals from March to June until the maggots disappear, or
2. The removal and effective destruction of all ripe maggots from the backs of infested cattle, by squeezing out or other mechanical means, at intervals not exceeding ten days during the months March to June until the maggots cease to appear.

WORLD'S 11TH DAIRY CONGRESS.

The Council desires to take this opportunity of calling the Members' attention to the World's 11th Dairy Congress to be held in Berlin from 22nd to 28th August, 1937.

At the conclusion of the International Dairy Congress held in this Country in 1928, this Association, through its Council, agreed to act on behalf of the dairy industry in matters relating to future International Congresses, and several meetings have been held at which delegates have been appointed to represent the various sections of the industry.

The Council has forwarded 29 papers on various subjects to the German Committee for discussion at the Congress, and arrangements for travel and accommodation are nearing completion.

It is hoped that many members of the Association will decide to join what promises to be a most instructive and interesting tour. A complete programme together with cost of attending the Congress will shortly be sent to all members and those desiring to participate should notify the Secretary, British Dairy Farmers' Association, 28, Russell Square, London, W.C.1.

By order of the Council,
FRED J. BULL,
Secretary.

28, RUSSELL SQUARE,
LONDON, W.C.1.

THE BRITISH DAIRY

FINANCIAL

GENERAL INCOME AND EXPENDITURE

Dr. WITH COMPARATIVE

EXPENDITURE.	1936. £	s.	d.	1935. £	s.	d.
Education, Examinations, Medal Scheme, Conference ...	274	10	7	301	12	11
Journal ...	507	12	0	679	9	3
Bank Charges, including cost of cheque books ...	28	12	0	21	15	7
Rent ...	240	0	0	240	0	0
Prizes to Exhibitors ...	3,883	2	8	3,659	10	5
Dairy Show—Hire of Hall, Fittings, Postage and Sundry Expenses ...	5,856	14	9	6,254	12	2
Working Dairy ...	519	17	2	536	10	4
Catalogues ...	781	14	4	840	2	1
Salaries ...	1,570	0	0	1,171	0	0
Wages and Labour ...	1,281	19	0	1,254	10	11
Printing, Stationery, Postage, and Sundry Office Expenses ...	272	1	7	360	18	1
Railway Fares for attendance at Council Meetings	177	5	6	185	11	5
Auditors' Fees, Law Charges, and Officers' Retaining Fees ...	338	2	2	181	9	3
Depreciation of Furniture ...	175	16	6	201	6	10
Loss on redemption of Investments ...		—		64	9	0
Donations—						
Royal Agricultural Benevolent Institution...	26	5	0	10	10	0
International Dairy Federation ...	10	10	0	30	5	0
Central Chamber of Agriculture ...	5	0	0	5	0	0
National Pigeon Association ...	1	1	0	1	1	0
National Institute for Research in Dairying	250	0	0		—	
Superannuation ...	124	0	8	117	17	8
General Analyses ...	19	8	6	22	16	9
BALANCE, being excess of Income over Expenditure ...	3,954	8	11	4,399	5	0
	£20,298	2	4	£20,539	13	8

FARMERS' ASSOCIATION

STATEMENTS

ACCOUNT for the Year ended December 31st, 1936.

STATEMENT FOR 1935. Cr.

INCOME.				1936.			1935.		
				£	s.	d.	£	s.	d.
Subscriptions				1,446	6	6	1,482	18	0
Donations					5	0	3	3	0
Examinations				85	10	9	66	15	7
Journal				85	13	4	96	9	5
Contributions to Prize Fund				296	1	0	336	6	0
Entry Fees, Competitive and Non-Competitive...				11,242	5	3	11,113	15	11
Profit on Sales of Exhibits, including Commission				63	10	5	86	2	7
Admission Money				4,249	15	3	4,179	2	10
Sales in Working Dairy and Milk Buffet ...				811	18	4	882	18	1
Catalogues Sales and Advertisements				621	9	10	721	1	11
Interest on Investments				1,359	10	2	1,443	1	3
Interest on Bank Deposit				17	19	6	16	6	2
Hire of Council Room				17	17	0	13	13	0
BRITISH DAIRY INSTITUTE, READING, RESERVE NOT REQUIRED.									
Reserve for estimated loss at 31.12.34	£125	0	0						
Deduct amount paid during 1935	27	0	1	—			97	19	11
				£20,298	2	4	£20,539	13	8

Dr. STATEMENT OF ASSETS AND LIABILITIES, December 31st, 1936. Cr.

LIABILITIES.	£	s.	d.	£	s.	d.
Sundry Creditors				127	1	6
World's Dairy Congress, 1928 ...				8	19	4
Surplus of Assets over Liabilities at 31st December, 1935	39,105	3	10			
Add Excess of Income over Expenditure, 1936	3,954	8	11			
				43,059	12	9
				£43,195	13	7

ASSETS.	£	s.	d.	£	s.	d.
Investments at Cost Price—						
£375 Southern Railway 4% Debenture Stock	265	0	0			
£375 London, Midland & Scottish Rly. 4% Debenture Stock...	280	0	0			
£500 India 3%	265	0	0			
£2,000 War 3½% Stock	1,701	9	0			
£1,500 L.C.C. 3% Stock	783	17	0			
£400 Hertfordshire 6% Stock ...	389	1	0			
£4,000 Metropolitan Water Board "B" 3% Stock	3,005	7	0			
£2,000 Commonwealth of Australia 3¾% Loan, 1946/49 ...	1,989	19	8			
£2,000 Commonwealth of Australia 3½% Registered Stock 1954/59	1,930	4	0			
£12,000 Conversion Loan 3½% ...	9,597	19	6			
£5,000 New Zealand 3% Inscribed Stock, 1952/55	4,875	6	0			
£8,500 Consolidated 2½% Stock ...	5,728	2	2			
£4,000 Local 3% Loans	3,787	18	0			
£3,000 Agricultural Mortgage Cpn. 4½% Debenture Stock 1961/91	3,551	10	3			
£2,000 Funding 2¾% Stock, 1952/57	1,972	14	0			
				*40,123	7	7
Furniture and Appliances :						
Value at 31st December, 1935, plus additions at cost ...	817	10	0			
Less Depreciation	175	16	6			
				641	13	6
British Dairy Institute, Reading Capital Contribution				825	0	0
Sundry Debtors 1936, and payments in advance ...				264	3	6
Cash at Bank and in hand				1,341	9	0
*The value, according to Market Price, of these Investments at 31st December, 1936, was £47,524.				£43,195	13	7

REPORT OF THE AUDITORS TO THE MEMBERS OF THE BRITISH DAIRY FARMERS' ASSOCIATION.

We have audited the foregoing Statement of Assets and Liabilities and the Income and Expenditure Account with the books and accounts of the Association. We have received all the information and explanations we have required. In our opinion such Statement of Assets and Liabilities is a full and fair statement containing the particulars required by the Regulations of the Association, and properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs according to the information and explanations we have received and as shown by the Books.

20th January, 1937.

(Signed) HERBERT J. PAGE, *Chartered Accountant.*
PERCY T. HAY
W. E. MANCHESTER } *Hon. Auditors.*
ROBERT WALLACE

The British Dairy Farmers' Association

Particulars of Medal Distribution Scheme.

The Council of the British Dairy Farmers' Association is prepared to consider applications from Educational Centres and Approved Societies in the United Kingdom for their Silver and Bronze Medals to be awarded in connection with dairying and dairy farming under the following conditions, viz. :—

1. All applications must be made on the official form and must clearly state the object for which the Medal or Medals are required.
2. Only one application from any Institution or Society can be considered in any one year.
3. The application must be repeated annually if medals are again required.
4. A copy of the draft prize list, showing the proposed conditions for the award of the Medal, should accompany the application, and the offer of a Medal cannot be confirmed until the prize list has been approved by the British Dairy Farmers' Association.
5. The British Dairy Farmers' Association stipulates that no entry fee shall be charged in respect of these Medals, which are offered as Special Extra Prizes.
6. Notification of the award, with the winner's full name and address, together with a marked catalogue of the Show, to be forwarded to the Secretary, British Dairy Farmers' Association, 28, Russell Square, London, W.C.1, within 14 days of the award being made.
7. A person may not receive more than one Medal under this Scheme for the same subject or exhibit during any one year.
8. Medals will not be granted in competitions where cups and/or trophies are also offered.
9. A medal will not be awarded in any class where there are less than six exhibits present.
10. This Scheme came into operation on January 1st, 1934, and takes the place of all previous Schemes.

Dairy Produce and Buttermaking.—The B.D.F.A. will consider applications on behalf of County or similar Shows for a Silver Medal as a Championship award.

The B.D.F.A. Bronze Medals may be available for local Shows and in each case shall only be awarded to the best exhibit or competitor.

Cattle.—The B.D.F.A. Silver Medals will only be awarded at County and similar Shows to cows or heifers which are milk-recorded under the Ministry of Agriculture Scheme.

Such Medals shall only be awarded to animals which have produced not less than the undermentioned minimum milk yields either during a lactation period of 315 days or for any one completed year of a recognised Milk Recording Society:—

Dairy Shorthorns, Lincoln Red Shorthorns, Blue Albions, British Friesians, Red Polls, Ayrshires, South Devons, Guernseys and Jerseys, 8,000 lbs. at 5 years old or over, or 6,000 lbs. at under 5 years.

Devons, Kerries and Welsh Blacks, 7,000 lbs. at 5 years old or over, or 5,500 lbs. at under 5 years.

Dexters, 5,000 lbs. at 5 years old or over, or 3,750 lbs. at under 5 years.

The B.D.F.A. Bronze Medals for cattle will be available only at Local Shows under similar conditions.

The B.D.F.A. Silver Medals will only be awarded to Bulls out of recorded cows whose milk records comply with the yields stated above.

The official Form A.56/TL., obtainable from Milk Recording Societies, giving the milk yield of the animal concerned, must be forwarded with the notification of the award. In the case of a Bull, the record of its dam is required.

DAIRY HERDS.—The B.D.F.A. will consider applications for Silver or Bronze Medals by the authorities organising dairy herd competitions.

Such medals shall only be awarded to herds which are recorded under the Ministry of Agriculture's Milk Recording Scheme.

CLEAN MILK COMPETITIONS.—The Gold Medal of the British Dairy Farmers' Association will be awarded to the leading competitor in each of the advisory provinces as arranged by the Ministry of Agriculture and Fisheries, provided the competition is recognised by the Ministry.

MILKING COMPETITIONS.—The B.D.F.A. will consider applications for Silver or Bronze Medals by the authorities organising County and District Milking Competitions.

Such Medals shall only be awarded where the milking competitions are judged in conformity with the scale of points issued by the Ministry of Agriculture, or as used at the Dairy Show.

OTHER COMPETITIONS.—The B.D.F.A. will consider applications for medals from properly constituted authorities for such other competitions as may be designed to lead to improvements in the practice of Dairy Farming or Dairying.

In the event of any dispute as to the interpretation of these Rules the Council of the British Dairy Farmers' Association reserves full power of decision, and in the event of the Medal not being awarded in accordance with the above Rules and Conditions, the Council reserves the right to withhold the Medal altogether.

MEDALS AWARDED DURING 1936

Applicant.	Show held at	Date.	Medal.	Winner and Object.
Hampshire County Council	Hampshire	Feb. 13... ...	Silver ...	Harry Hopkins, First in Milkers' Contest for competitors over 18 years.
,, ,, ,, ...		,, ...	Bronze ...	Eric Vincent, Second in Milkers' Contest for competitors over 18 years.
,, ,, ,, ...		,, ...	Silver ...	Gilbert Bates, First in Milker's Contest for competitors under 18 years.
,, ,, ,, ...		,, ...	Bronze ...	Jack H. Lawrence, Second in Milkers' Contest for competitors under 18 years.
Yeovil Shorthorn Bull Society	Yeovil	Feb. 14... ...	Bronze ...	E. J. Francis, for Shorthorn Bull "Stower Fairy Duke," as best dairy bull out of a milk recorded cow.
Monmouthshire County Council	Chepstow	May 18 & 19 ...	Silver ...	Percy Williams, First in Milkers' Contest for Men.
,, ,, ,, ...	,, ...	,, ...	Silver ...	Irene Reese, First in Milkers' Contest for Women.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	Dennis Aplin, First in Milkers' Contest for competitors under 18 years.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	Richard Williams, First in Milkers' Contest for competitors under 16 years.
,, ,, ,, ...	,, ...	,, ...	Bronze ...	Ivor Bowditch, First in Milkers' Contest for Students of the Monmouthshire Agricultural Institute.
Devon County Agricultural Association ...	Exeter	May 20-22 ...	Silver ...	Mark Luckes, Champion Milker.
Shropshire & West Midland Agricultural Society	Shrewsbury ...	May 27 & 28 ...	Silver ...	Capt. N. M. Harrop, for Shorthorn Cow "Gwersyllt Kirklevington," as best milk recorded dairy cow or heifer.
Cambridgeshire & Isle of Ely Agricultural Society	Newmarket ...	May 30	Silver ...	Lady Walston, for Jersey Cow "Newton Lady 4th," as best milk recorded dairy cow or heifer.
Yealmpton Agricultural Association	Yealmpton ...	June 3	Bronze ...	Mrs. G. E. Blackler, for butter, as best exhibit of butter or cream.
Staffordshire Agricultural Society	Uttoxeter ...	June 4	Bronze ...	Mrs. W. F. Inge, for best exhibit of butter.
Suffolk Agricultural Association	Stowmarket ...	June 5 & 6 ...	Silver ...	Miss B. E. Stearn, Champion Buttermaker.
Three Counties Agricultural Society	Worcester ...	June 9-11 ...	Silver ...	Miss P. Jones, Champion Buttermaker.
Royal Cornwall Agricultural Association ...	St. Ives	June 10 & 11 ...	Silver ...	J. Rossiter & Son, for South Devon Cow "Cholwell's Gretna," as the milk recorded cow gaining highest points in Milking Trials and Butter Test.
,, ,, ,, ,, ...	,, ...	,, ...	Silver ...	Miss P. Varker, for best exhibit of butter.
Essex Agricultural Society	Saffron Walden ...	,, ...	Silver ...	Miss J. Thompson, Champion Milker.
Royal Counties Agricultural Society ...	Worthing	June 15-18 ...	Silver ...	E. Abbott, Champion Buttermaker.
Lincolnshire Agricultural Society	Louth	June 17-19 ...	Silver ...	John Evens & Son, for Lincolnshire Red Shorthorn Cow "Burton Red Rose 10th," as best milk recorded dairy cow or heifer.
Yorkshire Agricultural Society	Beverley	July 8-10 ...	Silver ...	Mrs. E. V. Gully, Champion Buttermaker.
Tunbridge Wells & S.E. Counties Agricultural Society.	Tunbridge Wells ...	July 14 & 15 ...	Silver ...	John Martin, for British Friesian Cow, "Netherhall Jean," as best milk recorded dairy cow or heifer.
Bedfordshire Agricultural Society	Ampthill	July 16 ...	Silver ...	F. W. Gilbert, for British Friesian Bull "Glen Bushranger 2nd," as best dairy bull out of a milk recorded cow.
,, ,, ,, ...	,, ...	,, ...	Silver ...	Mrs. G. Rees-Mogg, for British Friesian Cow "Cliffordchambers Friesia," as best milk recorded dairy cow or heifer.

MEDALS AWARDED DURING 1936—*continued.*

Applicant.	Show held at	Date.	Medal.	Winner and Object.
Royal Lancashire Agricultural Society	Blackpool	July 30- Aug. 3	Silver	Miss M. M. Varker, for best exhibit of butter.
Berkeley Hunt Agricultural Society	Berkeley	Aug. 3	Bronze	Mrs. F. J. Pain, for best exhibit of cheese.
North East Somerset Farmers, Club	Brislington	Aug. 12	Bronze	A. H. Hunt, for best exhibit of cheese.
United Counties Agricultural Society	Carmarthen	Aug. 13	Silver	Pibwrlwyd Institute Farm for Shorthorn Cow "Copsale Comely Maid," as best milk recorded dairy cow or heifer.
Penistone Agricultural Society	Penistone	Aug. 27	Bronze	Miss A. M. Ward, for best exhibit of butter.
Dorchester Agricultural Society	Dorchester	Sept. 3	Silver	F. N. Terry, for British Friesian Cow "Chebbard Campion," as best milk recorded dairy cow or heifer.
Devynock Agricultural Society	Sennybridge	Sept. 5	Bronze	Miss F. Lewis, Champion Buttermaker.
Westmorland & Kendal District Agricultural Society	Kendal	Sept. 17	Silver	E. Dobson, for Shorthorn Bull "Sizergh Supreme," as best dairy bull out of a milk recorded cow.
East Devon Milk Recording Society	East Devon	Oct. 1, 1935 to Sept 30 1936	Silver	Capt. P. G. R. Benson, for Jersey Cow "Brycia," as the milk recorded cow giving highest yield of butter-fat.
Devon Cattle Breeders' Society	Exeter	Oct. 7	Bronze	A. J. P. Baker for Devon Bull "Woodrow Harvest 2nd," as best dairy bull out of a milk recorded cow.
National Federation of Young Farmers' Clubs	Dairy Show, London	Oct. 22	Silver	F. C. Christopher, First in Cow Judging Contest.
" " " " "	"	"	Bronze	F. Norris, Second in Cow Judging Contest.
" " " " "	"	"	Bronze	B. Green, Third in Cow Judging Contest.
" " " " "	"	Oct. 23	Silver	Joyce M. Bell, First in Poultry Judging Contest.
" " " " "	"	"	Bronze	Molly D. James, Second in Poultry Judging Contest.
" " " " "	"	"	Bronze	Vera Middle, Third in Poultry Judging Contest.

British Dairy Farmers' Association

PRIZE ESSAY

ON A

DAIRYING SUBJECT.

The Council offers a Prize of £15 and the B.D.F.A. Silver Medal for an Essay upon any practical or scientific subject relating to Dairy Farming or Dairying, conditionally upon sufficient merit being shown.

Preference will be given to one based on the original work and experience of the writer. Where the work of others is relied upon, full references must be given, either in footnotes or by numbers (1), (2), &c., with a list of authorities at the end.

The Essay should not exceed 5,000 words, and must be received by the undersigned on or before 1st October.

An Essay must be sent in a sealed envelope, bearing a *nom de plume*, and in another sealed small envelope, also bearing the *nom de plume*, the Author must insert his name and address.

The Prize Essay will be the property of the Association. Others will be returned to their respective Authors, but the Association reserves the right to retain Essays on subjects suitable for inclusion in the Annual Journal, which will be paid for at 10s. 6d. per Journal page.

FRED. J. BULL,
Secretary,
28, Russell Square, London, W.C.1.

The British Dairy Farmers' Association

Suggestions to Farmers as to how best to ensure THE CLEANLINESS OF THE MILK SUPPLY.

The attainment of a clean milk supply is largely dependent upon the action of Dairy Farmers themselves.

Every Dairy Farmer is financially interested in this question. Public doubt of the cleanliness of the milk supply means reduced demand for fresh milk. Public confidence means increased use of milk as food and drink—consequently a larger demand.

Any Dairy Farmer by want of reasonable care can jeopardise the reputation of the whole industry and thus destroy the good work of those whose efforts are to increase the consumption of milk.

The co-operation of every producer is confidently requested.

The main points to be emphasised are :—

(1) That consumers are entitled to receive milk which is clean and wholesome.

(2) That the precautions necessary to produce clean, wholesome milk are easy, simple and inexpensive.

Briefly these precautions are :—

To keep the milk sheds and cows as clean as possible.

To clean the udders and hindquarters and, before milking, wipe the udders with a clean damp cloth, rinsed after every cow.

To use a partly covered milking pail.

To see that milkers milk with clean hands.

To strain the milk through a strainer fitted with a suitable filtering medium which should be sterilised before each milking.

To empty water from cooler before washing.

To rinse utensils in cold water. Thoroughly wash in hot water and soda and scald in boiling water or, preferably, sterilise with steam or by boiling in water.

To stand utensils upside down to drain after cleaning and NOT to wipe them.

THIS ASSOCIATION APPEALS TO EVERY DAIRY FARMER TO PUT THESE PRECAUTIONS INTO OPERATION, BEING CONVINCED THAT IF PRODUCERS DO NOT TAKE MEANS TO ENSURE A CLEAN, WHOLESOME MILK SUPPLY THE DEMAND FOR FRESH MILK WILL SERIOUSLY DIMINISH.

Correspondence on this subject will receive attention at the Offices of the Association, 28, Russell Square, London, W.C. 1.

National Dairy Examination Board

APPOINTED BY

THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND,
THE HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND
THE BRITISH DAIRY FARMERS' ASSOCIATION.

Regulations and Syllabus for the National Diploma in the Science and Practice of Dairying,

1936

---

1. The Societies may hold annually in England and in Scotland, under the management of the National Dairy Examination Board appointed by them, one or more examinations for the National Diploma in the Science and Practice of Dairying; the Diploma to be distinguished shortly by the letters "N.D.D."

2. The Examinations will be held on dates and at places from time to time appointed and duly announced.

3. Forms of Entry for the Examination in England may be obtained from "The Secretary, Royal Agricultural Society of England, 16, Bedford Square, London, W.C. 1," and must be returned to him duly filled up, with the necessary entry fee (see Regulation 13).

4. Forms of Entry for the Examination in Scotland may be obtained from "The Secretary, Highland and Agricultural Society of Scotland, 8, Eglinton Crescent, Edinburgh," and must be returned to him duly filled up, with the necessary entry fee (see Regulation 13).

5. Any candidate may enter for the Examination either in England or Scotland, but not in both, and a candidate who has once taken part in an Examination in England cannot enter for an Examination in Scotland, or *vice versa*. *An exception may be made in favour of a candidate re-appearing under Regulation* 11 (3) *provided special application is made at the time of entry.*

6. As a preliminary to the acceptance of any application for permission to enter for the Examination, a candidate must produce :—

(1) A certificate testifying that he or she has attended a Diploma Course in the subjects of the Examination covering *two academic years* at an approved Dairy Training Institution and has satisfied the authorities of the Institution of his or her fitness for admission to the Examination. This period shall include six session months' instruction (consisting of not more than two periods), in practical dairy work.

(2) Evidence that he or she has spent at least six months on an approved Dairy Farm and taken part in the work. This period must not run concurrently with the six months' practical training referred to in subsection 1.

A Dairy Farm to be approved must have not fewer than fifteen cows kept in daily milking.

7. A candidate who has already taken a Degree in Agriculture of a British University, or a Diploma in Agriculture recognised by the National Dairy Examination Board, will be allowed to enter for the National Diploma in Dairying Examination after one year's training at an approved Dairy Training Institution, providing that such course includes at least six months' training in practical dairy work, and that he or she has worked for at least six months on an approved Dairy Farm.

8. In the Examination a candidate will be required to satisfy the Examiners by means of written papers, practical work, and *viva voce*, that he or she has :—

(1) A general knowledge of the Management of a Dairy Farm, including the rearing and feeding of Dairy Stock, the candidate being required to satisfy the Examiners that he or she had had a thorough training and practical experience in all the details of Dairy work as pursued on a farm.

(2) A thorough acquaintance, both practical and scientific, with everything connected with the management of a Dairy, and the manufacture of Butter and Cheese.

(3) A general knowledge of Dairy Factory Management, Dairy Hygiene, Dairy Engineering and Dairy Book-keeping.

(4) Practical skill in Dairying, to be tested by the making of Butter and Cheese.

NOTE.—A candidate must be prepared to make any one of the following varieties of Hard Pressed Cheese, the Examiner in Cheesemaking having the option of saying during the Examination what variety a candidate shall make :—

At the English Centre :—Cheddar, Cheshire or Derby.
At the Scottish Centre :—Cheddar, Dunlop or Cheshire.

9. Candidates will have the option of :—
(*a*) Taking the whole Examination at one time ; or
(*b*) Taking the Examination in two parts.

A candidate taking the Examination in two parts must take the following subjects at the first sitting : DAIRY FARMING, DAIRY HYGIENE, PRINCIPLES OF DAIRYING, DAIRY FACTORY MANAGEMENT AND DAIRY ENGINEERING, PRACTICAL CHEESEMAKING AND BUTTER-MAKING ; the remaining three Papers, CHEMISTRY AND PHYSICS, DAIRY BACTERIOLOGY, and DAIRY BOOK-KEEPING, to be taken at the Examination in the following year.

10. The maximum marks obtainable and the marks required for a pass in each subject are as follows :—

WRITTEN EXAMINATION—	Max.	Pass.
Dairy Farming	150	90
Dairy Hygiene	100	60
Dairying—		
(*a*) Principles of Dairying ...	150	90
(*b*) Dairy Factory Management and Dairy Engineering ...	100	50
Chemistry—		
(*a*) General Chemistry and Physics (*b*) Dairy Chemistry	100	60
Dairy Bacteriology	100	60
Dairy Book-keeping	100	50
PRACTICAL EXAMINATION—		
Hard-pressed Cheese-making	200	150
Blue-veined Cheese-making	100	75
Soft Cheese-making	100	75
Butter-making	200	150
	1,400	910

Honours will be awarded to candidates obtaining an aggregate of 80 per cent. (1,120) of the maximum marks (1,400) in the Examination, provided that they also obtain at least 80 per cent. (400) of the maximum marks (500) in the Dairy Farming, Hygiene, and Dairying papers.

11. A candidate taking the whole Examination at one time—
    (1) who fails in any part of the practical examination shall fail in the whole examination.
    (2) who fails in four or more subjects of the written examination shall fail in the whole examination,
    (3) who having passed in the practical examination, fails in not more than three subjects of the written examination, may, at the discretion of the Board, appear for those subjects in the following year.

The Board may in certain circumstances require evidence of further study in these subjects.

12. A candidate taking the Examination in two parts, and failing in a *single subject* in the first part of the Examination, may, at the discretion of the Board, appear for that subject along with the second part; or, in the case of a *single subject* of the second part, in the following year. The Board may in certain circumstances require evidence of further study in that subject. Failure in more than one subject will be regarded as failure in that part of the Examination. Failure in any part of the Practical Examination will entail complete failure.

13. The entrance fees will be as follow:—

	£	s.	d.
For the whole Examination taken at one time ...	3	3	0
For the Examination taken in two parts:			
First part	3	3	0
Second part	1	1	0

For re-appearance, 10s. 6d. each subject.

14. The Board reserve the right to postpone, to abandon, or in any way or at any time to modify an Examination, and also to decline at any stage to admit any particular candidate to the Examination.

SYLLABUS OF SUBJECTS OF EXAMINATION

1.—DAIRY FARMING AND DAIRY HYGIENE.

(a) Dairy Farming.

Soils and Crops.—Types of Soils suitable for dairying. Rotations and systems of cropping. Cultivation, manuring and management of grain, root and forage crops used in dairying. Silage. Temporary and permanent pastures, haymaking.

Plant Physiology.—Roots, shoots, flowers, fruit and seeds of agricultural plants.

Dairy Cattle.—Characteristics of different breeds. Relation of conformation and appearance to Milk Yield. Choice of dairy cattle in relation to climate and soil. The milk yields of the more important breeds, and suitability for the milk trade, cream, butter and cheese production.

The management of a Dairy Herd. Cattle breeding and grading up of dairy stock. Calf rearing and management of young stock.

Milk Recording. Systems, and utilisation of results. Details of official schemes.

Foods and Feeding.—Summer and winter feeding of dairy cattle and young stock. Fodder crops and green forage. Roots. Ensilage. Concentrated foods, meals, cakes. Preparation of food. The effect of food on milk and its products.

Pig Keeping.—Characteristics of the more important breeds. The breeding, rearing and fattening of pigs. Production of pork and bacon.

Farm Management.—Systems of dairy farming. The selection, stocking and equipment of typical farms. Organisation of the farm and disposal of produce.

Dairy Economics,—The Dairy Industry of Great Britain and its relationship to Agriculture. The relative importance of the various products. The retail milk trade. Markets, Dairy organisation and co-operation. Modern developments in the Dairy industry. Sources of imported Dairy Produce.

(b) Dairy Hygiene.

Animal Physiology.—General functions of the organs of the animal body. Breeding. Parturition. The structure of the udder and the process of milk secretion. Changes which food undergoes during digestion.

Veterinary Science.—The more important diseases of dairy cattle and their treatment. The transmission and eradication of disease.

Milk Hygiene.—Sanitary conditions. Suitability of water supply. Methods of milking and handling of milk. Regulations affecting milk production. Milk in relation to Public Health.

Farm Buildings.—Situation, chief dimensions and construction of cow houses and dairy buildings. Housing for young stock and pigs. Air space and ventilation, drainage and water supply.

2.—DAIRYING.

(a) Principles of Dairying.

Milk—Milking by hand and machinery. Importance of cleanliness. Cooling of milk. Prevention of contamination. Pasteurisation. Sterilisation. Keeping of milk. Milk testing and sampling. Use of Gerber and Babcock Testers. Interpretation of results. Legal standards. Legislation affecting milk production.

Cream.—Separators and their management. Different systems of cream raising and ripening of cream. Changes during ripening. Natural and artificial ripening, and preparation and uses of starters. Preparation of cream for sale. Uses of preservatives. Clotted cream.

Butter.—Churns and butter-making appliances. Preparation of cream for churning. Washing and working butter. Butter milk. Packing and transmission of butter. Selection and keeping of butter. Salting. Use of preservatives. Characteristics of good butter and method of judging. Circumstances affecting the flavour, texture, colour and keeping qualities of butter. Potting butter for keeping. Causes of inferior butter.

Cheese.—Principles of manufacture. Appliances for cheese-making. The making of the principal varieties of British, Colonial and Continental cheese from cream, whole milk and skim milk. Acidity of milk. Common tests for acidity. Uses of rennet and its substitutes. Whey. Ripening and storage of cheese. Packing and sale of cheese. Making of cream and other soft cheese. Defects in cheese and their causes. Judging cheese.

(b) Dairy Factory Management and Dairy Engineering.

Factory Practice.—Milk depots and handling of factory milk. Systems of cooling and refrigeration. Pasteurisation. Factory butter and cheese-making. Milk Powders. Condensed milk. Frozen milk. Ice cream. Dried casein. Fermented milk. Lactose and whey-butter. Margarine manufacture. Equipment of milk depots, butter, cheese and dairy factories.

Factory Management.—Factory routine. Organisation of labour. Handling of milk on arrival at the factory. Methods of dealing with the milk. Milk contracts. Dairy factory legislation.

Dairy Appliances and Machinery.—Appliances used in the production and handling of milk, butter and cheese. Care and management of engines and boilers, dairy factory machinery, refrigerating machinery.

Buildings.—Situation, construction and drainage of creameries, milk depots and dairy factories.

3.—CHEMISTRY.

(a) General Chemistry and Physics.

Chemistry.—Elements, compounds and mixtures. Chemical symbols, formulæ and equations. Acids, bases, salts: their distinctive properties. Acidity and alkalinity; their quantitative estimation. The Atmosphere: its constituents and impurities; influence on dairying operations. Water: its constitution; pure and natural waters; impurities in water and whence derived. Importance of a good water supply in dairying. General knowledge of elementary chemistry. Oxygen; hydrogen; carbon; nitrogen; phosphorus and sulphur; common metals; common acids; compounds of potassium, sodium, ammonium, calcium.

Elementary organic chemistry; sugar, milk sugar, starch, alcohol, acetic acid, formaldehyde, butyric acid, lactic acid, glycerine, saponification of fats; albumen, casein, pepsin.

Physics.—The different forms of matter; solid, liquid, gaseous. Specific gravity and instruments for determining it. Temperature and methods of measuring it. Expansion; thermometric scales. Influence of temperature in dairy operations. Atmospheric pressure and its measurement. Hygrometry. Heat and its measurement; specific heat. Latent heat. Conduction. Convection. Radiation. Solution. Filtration. Distillation. Simple machines, such as levers, pulleys and light weighing machine.

(b) Dairy Chemistry.

Chemistry of Milk.—The nature, composition, properties and chemical constituents of milk. Microscopical appearances presented by milk. The influence of feeding. The changes which occur in the keeping of milk, and how produced. The natural and artificial souring of milk. Rennet, its nature and uses.

Milk Products.—Physical and chemical changes involved in the making and keeping of butter and in the manufacture and ripening of cheese. Separated milk. Condensed milk. Fermented milk. Synthetic milk. The use of preservatives.

Dairy Analysis.—Analytical methods, their theory and practice. A general knowledge of the methods employed in the chemical analysis of milk, butter and cheese. Adulteration of milk, cream, butter and cheese, the ways in which adulteration is practised, the changes in composition thereby produced and a general knowledge of the methods employed in detecting the same.

Chemistry of Feeding.—The principal constituents of food materials and the functions they severally fulfil. The influence of food constituents on milk production. Assimilation and digestion. The manurial value of foods. Milk and milk products as foods.

N.B.—Candidates are required to bring to the Oral Examination their Laboratory note books in sections (*a*) and (*b*) of this subject certified by their teachers as being the record of their laboratory work carried out during the course.

4.—DAIRY BACTERIOLOGY.

General Bacteriology.—Bacteria; their form, classification, growth and reproduction. The microscope and its use. Staining and microscopic examination of bacteria. Methods of isolation and cultivation. Preparation of culture media. Fermentations and chemical changes produced by bacteria. Enzymes and their action. Effects of heat, cold, sterilisation, pasteurisation, disinfectants and preservatives on bacteria and enzymes. Bacteriological examination of water supplies.

Bacteriology of Milk.—The changes produced by bacteria in milk. Useful forms and their functions. Harmful forms and their effects. Coagulation, discolouration, taints, &c. Bacteriological and other standards in relation to the cleanliness of milk.

Milk Products.—The bacteria concerned in the ripening of cream and butter making. "Starters," their preparation and management. The ripening of hard, soft and blue-veined cheese. Bacteria injurious to milk products, including condensed and dried milk.

Dairy Mycology.—Moulds and yeasts in dairy practice. Their form, classification, growth and relation to dairy products.

N.B.—Candidates are required to bring to the Oral Examination in this subject their Laboratory notebooks certified by their teachers as being the record of their laboratory work carried out during the course.

5.—DAIRY BOOK-KEEPING.

Reasons for keeping accounts on the farm and in the dairy factory.

General principles of double-entry book-keeping. Use of day-book, journal, ledger, cash-book, analysis cash-book, and petty cash book. Preparation of profit and loss account, capital account and balance sheet. Adjustments necessary for the owner-occupier.

Valuations. Basis of valuations for accounting purposes on the farm and in the dairy factory. Dates for stock-taking.

Methods of accounting suitable for dairy farms and factories. Forms for milk-retailing, cheese-making, and butter-making.

Preparation of a cost account for milk production.

Interpretation and use of accounting results, with special reference to their practical application.

Opening a Bank account. Cheques, deposits, and over-drafts.

Assessment of the Farmer for Income Tax purposes.

6.—PRACTICAL SKILL IN DAIRY WORK.

Candidates must be prepared—(1) to produce before the Examination a satisfactory certificate of proficiency in the milking of cows, signed by a practical Dairy Farmer, and to satisfy the Examiners by a practical test, if so required ; (2) to churn and make into Butter a measured quantity of Cream ; and (3) to make one Cheese of each of the following varieties :—(1) Hard-pressed, of not less than 30 lb. (See Note to Reg. 8 (4). (2) Veined or blue-moulded of not less than 10 lb., and (3) also to make one or other of the following Soft Cheeses : Cambridge, Camembert, Coulommier, or Pont l'Evêque.

The British Dairy Farmers' Association

CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

Candidates for the Certificate in Dairy Factory Management must fulfil the following conditions :—

1. They must possess an approved Diploma in Dairying.
2. They must have had six months' practical instruction at an approved dairy factory, or at an approved dairy factory school.
3. They must obtain 60 per cent. of the possible marks in the examination for the Certificate in Dairy Factory Management.

Examination for the CERTIFICATE IN DAIRY FACTORY MANAGEMENT.

1. Two papers will be set on the subjects outlined in the following syllabus.
2. Candidates will be examined orally in Factory Management with reference to the type of factory in which their practical training has been obtained.
3. Candidates must submit to the Examiners full notes of the work which has been carried out in the factories in which their practical experience has been obtained.

SYLLABUS OF EXAMINATION.

This Syllabus should not be viewed from a purely engineering standpoint, but students will be expected to have a general knowledge of the management of factory machinery :—

Paper 1.—Planning, Equipment and Management of a Dairy Factory.

Dairy Factories.—Site, building materials, construction, laying of floors, lighting, ventilation, drainage, sanitation, disposal and treatment of sewage and factory waste. Space requirements for the common types and sizes of factories.

Water Supply.—Water requirements ; sources of supply. Examination for quality and purity. Methods of purification. Suitability of water supplies for dairy purposes. Sites for wells. Construction of wells. Artesian wells. Pumps for deep and shallow wells. Air-lift pumps.

Factory Equipment.—Artificial lighting and sources of power in the factory. Equipment required for various types of factories and approximate cost of same. The disposition and control of factory machinery.

Steam Plant.—Types of vertical and horizontal boilers and their relative advantages and disadvantages. Sizes of boilers required in dairy factories. Evaporating power of boilers. Setting and insulation. Cleaning out of boilers. Economical firing. Fuel used, *e.g.*, coal, coke and wood. Cost and calorific value. Fuel consumption and cost of steam production. Allocation of steam supply to different purposes in the factory. Boiler smoke stacks and their construction. Boiler fittings, including donkey pumps and water injectors. Feed heaters. Methods of economising steam supply.

Factory Machinery.—Steam, gas and oil engines. Electric motors, turbines, water power, comparison of the various types and their relative efficiency. Construction and working of the various types. Cost of maintenance. Power requirements of the factory and the most suitable combinations of power when different sources of energy are available. The management and fitting up of machinery, including electric fittings. Adjustment of bearings. Packing of glands. Fixing of brackets, &c. Lubrication of machinery. Oil containers and filters. Lubricants. Lubrication of high-speed machinery. Oils and grease for shafting. Arrangement of machinery and methods of transmitting power. Belts, types and uses. Repairs to belting. Pulleys and gearing. Methods of increasing and reducing speed. Labour-saving devices. Tools required for a dairy factory.

Factory Plants.—Construction and operation of milk apparatus, including clarifiers, pasteurisers, separators, milk pumps, refrigerators, &c. Refrigerating machinery, CO2 and ammonia. Methods of operation and management. Cold storage and brine cooling. Efficiency in the transfer of heat in heating and cooling apparatus. Methods of carrying out efficiency tests under different conditions and outputs. Factory appliances including cheese vats, holding vats, power churns, bottling machinery and other factory equipment. Their approximate cost and suitability of the various types. Methods of cleaning equipment, utensils and milk churns.

Factory Management.—Organisation of labour. Business management. Book-keeping. Cost accounts. Profit and loss in manufacturing. Stock-taking and depreciation. Railway rates and conditions. Road transport. Systems and comparative costs. Advertising. Markets and sale of produce. Co-operative organisation.

Factory Law.—Law as far as it affects the factory, the management and the produce. Factory and Workshops Act. Workmen's Compensation. Health Insurance. Employer's Liability and Trade Boards Acts. Industrial and Provident Societies Act. Rivers Pollution Act. Sale of Foods and Drugs Act. Milk and Dairies Acts, and other legislation as it affects the working of factories and the manufacture and sale of dairy produce.

Paper 2.—Handling and Utilization of Milk and Milk Products.

Handling of Milk.—Purchase, collection and distribution of milk. Management of milk on arrival at the factory. Weighing, sampling, testing, recording and cleaning. Methods of paying for milk and cream.

Utilization of Milk.—Methods of dealing with milk for sale for cream production, buttermaking, cheesemaking, and for the manufacture of other products.

Factory Products.—Preparation of cream for market. The manufacture and treatment of butter and cheese. Manufacture of condensed and powdered milk, casein and milk sugar, &c. Ice cream manufacture, &c. The utilization of by-products.

Pig-Keeping.—Feeding and management of pigs. The production of pork and bacon. Bacon curing.

The Entry Fee for each Candidate is £4 4s.

Any further particulars and Entry Forms for this Examination may be obtained from—

THE SECRETARY,
BRITISH DAIRY FARMERS' ASSOCIATION,
28, Russell Square, London, W.C.1.

Examination for
CHEESEMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Cheesemaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce.* On the same or following day a Practical Examination in Cheesemaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. of the marks on each and every written paper and not less than 66 per cent. in the Practical Test.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least twelve months' instruction in the Theory and Practice of milk production and Cheesemaking, of which at least six months must have been spent at a recognised centre for dairy instruction. They must possess a sound knowledge of the subjects included in the following Syllabus.

Candidates will be required to make one Hard-pressed Cheese, either Cheddar, Cheshire or Derby, to be selected by the Examiner, and one Blue-veined Cheese, either Stilton or Wensleydale, to be selected by the Candidate. They must also have a knowledge of the manufacture of other varieties of Hard-pressed Cheese and of Soft Cheese.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

The Examination for Cheesemaking Certificates is held at the British Dairy Institute, Reading, in the Autumn of each year, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 10s.

SYLLABUS.

1. *Milk.*—The Food Value of Milk; The Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from Cow to Dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Food on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its Constituents; Differences between Morning and Evening Milk and their Causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its Nature and Properties; the Keeping of Dairy Records; the Handling of Evening's Milk for Cheesemaking; Properties of Milk suitable for Cheesemaking; Taints in Milk, their Causes, Effects and Remedies; Tests for such Taints; the Ripening of Milk for Cheesemaking; Methods and Reasons for Ripening; use of Natural and "Culture" Starters; Pasteurisation of Milk; Chilled Milk; their subsequent use for Cheesemaking; Special Testing of Milk, Whey, and Curd requisite in a Cheese Dairy; Utilization of Dairy By-products.

2. *Cheese.*—Rennet: its Preparation, Properties, and Action upon Milk; Testing its Strength; Storage of Rennet; Substitutes for Rennet; Anatto; a General Knowledge of the Manufacture of the Principal Varieties of Hard-pressed, Blue-veined and Soft Cheeses, including the use of wood and metal tubs and jacketed vats; Methods of Scalding; the Development and Control of Acidity in Curd; Salting and Brining in Cheesemaking; Bandaging; Ripening and Storing of Hard-pressed, Blue-veined and Soft Cheeses; Defects in Cheese and their Causes; Composition of Cheese; Composition and Utilization of Whey; the Manufacture of Whey Butter; the Equipment of a Cheese Dairy and its Cost; the care of Utensils; the Detailed Principles and Practice requisite for the Manufacture of one of the following types of Cheese:—
   - (*a*) A Hard-pressed British Cheese (not less than 25 lbs. weight).
   - (*b*) A Blue-veined British Cheese (not less than 10 lbs. weight).

Any further particulars and Entry Forms for this Examination may be obtained from—

The Secretary,
British Dairy Farmers' Association,
28, Russell Square, London, W.C. 1.

Examination for
BUTTERMAKING CERTIFICATE.

The Association grants to any Candidate who satisfactorily passes the necessary Examination—

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking.

The Examination, which will extend over two or more days, will test the Theoretical Knowledge of the Candidates and their Practical Skill in Buttermaking. Each Competitor will be required to answer, in writing, a set of questions within a given time, and will also be examined *viva voce*. On the same or following day a Practical Examination in Buttermaking will take place.

Candidates will be considered to have passed the Examination if they obtain not less than 60 per cent. on each and every written paper, and not less than 66 per cent. in the Practical Test.

Candidates for this Certificate must, at the time of entry, produce satisfactory evidence that they have received at least three months' instruction (not necessarily at a Dairy School) in the theory and practice of Milk and Cream production and management, and Buttermaking. They must possess a sound knowledge of the subjects included in the following syllabus.

Candidates are at liberty to bring their own utensils for the Practical Examination if they wish to do so.

The Examination for Buttermaking Certificates is held at the British Dairy Institute, Reading, in the Autumn of each year, upon dates announced in the Agricultural and Dairy Press.

Entries will close 28 days prior to the date fixed for the Examination.

The Entry Fee is 5s.

SYLLABUS.

1. *Milk.*—The Food Value of Milk; the Yield of Milk from various Breeds; Secretion of Milk and Structure of the Udder; Milking by Hand and Machine; Handling of Milk from Cow to Dairy; Importance of Cleanliness; Production of Highest Grade Milk; Cooling of Milk; Sale of Milk; Influence of Foods on the Yield, Flavour and Fat Contents of Milk; Composition of Milk, Nature and Properties of its constituents; Differences between Morning and Evening Milk and their causes; Methods of Sampling and Simple Methods of Testing Milk, as the Lactometer, Creamometer, and Centrifugal Fat Testers; Testing for Acidity; Causes of Fermentation; Colostrum, its Nature and Properties; the Keeping of Dairy Records.

2. *Cream.*—The Various Methods of Obtaining Cream; the Construction and Use of the Utensils employed; Separators, the Construction and Use of the various Types; Composition of Cream, Separated Milk, Skimmed Milk, and Buttermilk, with Simple Tests for Fat in same; the Ripening of Cream—Objects and Results; Changes during Ripening; Testing for Acidity; Natural and Artificial Ripening and Preparation of Starters; the Preparation of Cream for Churning; Preparation of Cream for Sale; Clotted Cream.

3. *Butter.*—The Various Methods of obtaining Butter, including the Churning of Whole Milk; Utensils required, and the Preparation, Use, and Care of same; the Process of Butter Manufacture in all its details; Conditions which affect the Butter Yield; Circumstances affecting the Flavour, Texture, Colour, and Keeping Properties of Butter; Dry-salting and Curing of Butter; Faults in Butter and their Causes; Composition and Properties of Good Butter; Composition and Causes of Inferior Butter; Methods of Judging Butter.

Any further particulars and Entry Forms for this Examination may be obtained from—

THE SECRETARY,
BRITISH DAIRY FARMERS' ASSOCIATION,
28, Russell Square, London, W.C. 1.

EXAMINATIONS

AT

LOCAL CENTRES.

In order to meet the convenience of Students at Dairy Schools, members of local Societies, and other persons, the Association will conduct Examinations for its Certificates at any place in the United Kingdom upon receiving satisfactory proof that the following conditions will be observed :—

That the School, Society, County Council, or other body requesting such Examination to be held undertake :—

(1) To supply all necessary appliances and materials.

(2) To pay the fees and expenses of the Examiners.

(3) To supply the milk required free from preservatives and fit for Cheesemaking.

Copies of Question Papers set at recent Examinations may be obtained at 3d. per copy.

Applicants are requested to state whether Cheese or Butter questions are required.

Further particulars and Entry Forms for Students may be obtained from—

The Secretary,
British Dairy Farmers' Association,
28, Russell Square, London, W.C. 1.

National Dairy Examination Board

Appointed by the Royal Agricultural Society of England, the Highland and Agricultural Society of Scotland, and the British Dairy Farmers' Association.

Report on the Results of the Forty-first Examination for the National Diploma in Dairying 1936

1. The eighth Examination under the auspices of the present Board—and the Forty-first Annual Examination for the National Diploma in Dairying—was, by the courtesy of the Authorities, held during September at the University and British Dairy Institute, Reading, for English and Welsh students, and at the Dairy School for Scotland, Auchincruive, Ayr, for Scottish students.

2. As a preliminary to the acceptance of an application for permission to enter for the examination, a candidate was required to produce :—(1) A certificate testifying that he or she had attended a Diploma Course in the subjects of the Examination covering *two academic years* at an approved Dairy Training Institution ; (2) Evidence that he or she had spent at least six months on an approved Dairy Farm and taken part in the work.

3. A candidate who had already taken a Degree in Agriculture of a British University or a Diploma in Agriculture recognized by the Board, could enter for the Examination after one year's training at an approved Dairy Training Institution providing that such course included at least six months' training in practical dairy work, and that he or she had worked for at least six months on an approved Dairy Farm.

4. The written Examination included papers in Dairy Farming, Dairy Hygiene, Principles of Dairying, Dairy Factory Management and Dairy Engineering, Chemistry and Physics, Dairy Bacteriology and Dairy Bookkeeping. The Practical Examination comprised Hard-pressed, Blue-veined, and Soft Cheese-making, and Butter-making.

5. A candidate had the option of taking the whole examination at one time, or of taking only Part I., which omits Chemistry, Bacteriology and Book-keeping. These last three subjects—constituting Part II.—have to be taken at the examination of the year following that at which Part I. was passed.

6. A candidate taking the whole examination, who, having passed in the practical examination, failed in not more than *three* subjects of the written examination might, at the discretion of the Board, appear for those subjects in the following year. A candidate who failed in four or more subjects of the written examination, or in any part of the practical examination, failed in the whole examination.

7. A candidate taking the examination in two parts, and failing in a *single subject* in Part I., might at the discretion of the Board, appear for that subject along with Part II. ; or, in the case of a *single subject* of Part II., in the following year. Failure in more than one subject was regarded as failure in that part of the Examination. Failure in any part of the practical examination entailed complete failure.

8. At both Centres the same Questions were answered by the candidates from September 2 to 4. The Practical Examination as well as the *viva voce* was conducted at the Scottish Centre from September 7 to 12 and at the English Centre from September 15 to 19.

9. Sixty-six candidates presented themselves at the Scottish Centre, of whom 15 were re-examined in subjects in which they had previously failed ; 51 took the whole examination. Forty candidates succeeded in passing the examination, but no Honours were awarded. Following are the names of the Diploma-winners in alphabetical order :—

SCOTTISH CENTRE.

Diploma.

Mary F. Campbell, Ronald Crichton, Robert A. Dyke, Janet R. L. Elliot, Alan S. Gage, Janet I. Gray, Allan Greig, Janet B. Holmes, Andrew Howie, Edna E. Jackson, Reginald Kenney, May A. Lambie, John E. Lewis, John Lockhart, Jesse C. M. McCall, Parlan J. Macfarlan, James McGibbon, Mary MacLean, M. A. McVicar, John Maidment, Ann S. Mathers, Thomas Morgan, Margaret J. Orr, Jane Paterson, C. E. L. Powell, Mandayam C. Rangasamy, Margaret K. Russell, Isabella Sanderson, Archibald B. Smart, Jeanie R. Smith, Nancy M. H. Sonley, John Steven, James P. Struthers, Thomas H. Thompson, Betty H. Tod, Christina C. Tulloch, Harish C. Verma, Marion M. Walmsley, Kathleen M. M. Ward, Geoffrey Williamson.

Seventeen candidates failed in not more than three subjects, for which they will be permitted to reappear in 1937.

All the candidates at the Scottish Centre had been students at the Dairy School for Scotland, Auchincruive, Ayr.

10. Of the 85 candidates who presented themselves at the English Centre, one entered for Part 11, 14 appeared for re-examination in subjects in which they had previously failed, 66 took the whole examination, and four entered for Part I only.

Thirty candidates were awarded the Diploma, one with Honours. One candidate passed Part I. The names of the successful candidates, in alphabetical order, are as follows :—

ENGLISH CENTRE.

Diploma with Honours.

Egerton M. Kidner.

Diploma.

Elinor G. ApThomas, Margaret Armorey, Margaret A. Blore, Wilfred Boddy, William Bond, Clarice Burt, Sydney G. Davies, Edna Foster, Marion Groves, Ruth Hambly, Agnes H. Holmes, John S. Hopkins, Thomas I. Jones, Samuel F. Martin, Emmeline A. Moore, Dennis I. Mortimer, Audrey J. Peters, Dilys M. Phillips, James B. Presswood, Ida G. P. Roberts, Elinor M. C. Roper, Graham D. Simons, William B. Smith, Frederick J. Sowerby, Elizabeth Turner, John M. Willcock, Kenneth P. Williams, George D. Winter, Gladys M. Yeomans.

Passed Part 1.

Barbara C. Taylor.

Thirty-two candidates failed in not more than three subjects, for which they will be allowed to reappear at next year's Examination.

The Diploma has also been awarded to :

Frank A. Hunt, Sydney's Hope Estates, Warrenton, C.P., South Africa.

who was examined at the Scottish Centre in 1935, and was given special permission by the Board to re-sit two Papers in South Africa.

11. The Examiners at both Centres were : Richard H. Evans, B.Sc. (*Dairy Farming, Dairy Hygiene and Practical Buttermaking*) ; William Lawson, M.B.E., N.D.A. (Hons.), C.D.A. (Glas.), N.D.D. (*Principles of Dairying, Dairy Factory Management and Dairy Engineering and Practical Cheese-making*); Dr. S. Allinson Woodhead, F.I.C. (*Chemistry and Physics*) ; Dr. Andrew Cunningham (*Dairy Bacteriology*) ; James Wyllie, B.Sc., N.D.A. (Hons.), N.D.D. (*Dairy Book-keeping*).

Results of Examinations held by the British Dairy Farmers' Association during 1936.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE SOMERSET FARM INSTITUTE, CANNINGTON ; ON MONDAY, TUESDAY AND WEDNESDAY, MARCH 23RD, 24TH AND 25TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Hilda J. Derrett, William J. Dredge, Mary F. E. Loxton, Mildred G. Scurlock, Leslie W. Stokes, Clare D. Vernon and Betty J. Way.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Hilda J. Derrett, William J. Dredge, Mary F. E. Loxton, Mildred G. Scurlock, Leslie W. Stokes and Clare D. Vernon,

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE FARM INSTITUTE, SPARSHOLT; ON WEDNESDAY, THURSDAY AND FRIDAY, JULY 8TH, 9TH AND 10TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Diana S. Barrow, Betty Bowes, Amy J. Brown, Lilian M. Coleman and Stanley Valentine.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Diana S. Barrow, Betty Bowes, Amy J. Brown, Lilian M. Coleman, Madge A. Smith, Lorna D. Thomson and Stanley Valentine.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE SEALE-HAYNE AGRICULTURAL COLLEGE, NEWTON ABBOT; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 13TH, 14TH AND 15TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Doris E. Glanville, Leonard D. Hall, Dorothy Hosking, John Martin, Robert Matthews, Frederick T. Westlake and Kathleen E. Wills.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Doris E. Glanville and Kathleen E. Wills.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT STUDLEY COLLEGE, WARWICKSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 20TH, 21ST AND 22ND.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Katherine R. Baker, Barbara Barton, Elizabeth H. Barton, Agnes M. Frew, Jean L. Gordon, Eileen P. Horner, Marion Kitchin, Elizabeth V. Lyon and Joan R. Skinner.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Janet L. Davis, Frances E. L. Epps, Mary C. Hatch and Norah Tanner.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE AGRICULTURAL INSTITUTION, USK, MONMOUTHSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, AUGUST 10TH, 11TH AND 12TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to Olwen Allen, Hannah E. Bevan, Ivor L. Bowditch, Désirée E. Collas, George E. Crum, Edna Davies, Winifred Evans, Ivy D. Heath, Ronald S. Hopkins, F. Clifford John, Janet A. Le Vesconte and Mildred E. Taylor.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to Olwen Allen, Hannah E. Bevan, Désirée E. Collas, Edna Davies, Winifred Evans, Ivy D. Heath, Nancy J. Heath, Janet A. Le Vesconte, Marjorie C. Payne and Milfred E. Taylor.

EXAMINATION FOR BUTTERMAKING AND CHEESEMAKING CERTIFICATES AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY AND WEDNESDAY, SEPTEMBER 7TH, 8TH AND 9TH.

A Certificate of Merit for Proficiency in the Theory and Practice of Buttermaking awarded to William P. J. Arthur, Marian E. Barnham, Margaret A. Blore, Sydney G. Davies, John S. Farmer, Mary L. Gray, Margaret Henderson, John S. Hopkins, Eleanor M. Johnson, Elizabeth Jones, Egerton M. Kidner, Nancy M. Meredith, Emmeline A. Moore, Audrey J. Peters, Dilys M. Phillips, Eifion G. Phillips and William J. V. Taylor.

A Certificate of Merit for Proficiency in the Theory and Practice of Cheesemaking awarded to William P. J. Arthur, Rondesley W. Baker, Marian E. Barnham, Margaret A. Blore, Pearl A. Bullock, Clara E. Burgess, Sydney G. Davies, Gordon S. Douglas-Jones, Dorothy Dryden, Isobel M. Gardiner, Mary L. Gray, Margaret Henderson, John S. Hopkins, Eleanor M. Johnson, Elizabeth Jones, Egerton M. Kidner, Nancy M. Meredith, Emmeline A. Moore, Audrey J. Peters, Dilys M. Phillips and William J. V. Taylor.

National Dairy Examination Board

Papers set for the National Diploma in Dairying, September, 1936

DAIRY FARMING.

(*Time allowed, three hours*).

All questions to be attempted.

1. What types of soils do you consider most suitable for dairy farming purposes ?

2. Describe the rotation of cropping you would adopt on any of the soils referred to in Question 1, and point out the advantages of such a rotation.

3. Describe the root-system of the following plants : clover ; mangolds ; swedes ; oats and barley.

4. Discuss the suitability of the various dairy breeds for :—
    (*a*) Milk Production.
    (*b*) Cream Production.
    (*c*) Butter making purposes.
    (*d*) Cheese making purposes.

5. Which, in your opinion, are the best breeds of pigs or crosses for the production of pork and bacon respectively ? Describe the feeding of pigs intended for bacon purposes during the last four weeks of the fattening period.

6. If you were placed in charge of a herd of good type dairy cows of any breed, explain the steps you would take in grading up the same to pedigree standard.

7. Discuss the conditions under which you consider co-operation advantageous to the dairy industry.

8. Write a brief account of recent developments in the British Dairy Industry.

DAIRY HYGIENE.

(*Time allowed, two hours*).

All questions to be attempted.

1. Describe the digestive organs of :—
    (*a*) the Cow.
    (*b*) the Pig.

2. Enumerate the more important causes of "abortion" in cattle. Describe the immediate steps you would take in a case of abortion.

3. How would you treat an animal suffering from "Warble Fly" attack ? What preventive methods would you suggest ?

4. Why is a suitable source of water supply essential in the dairy ?

5. Write a brief essay on "Milk in its relation to Public Health."

6. Write brief notes on the "air space" and "ventilation" of a cow-byre.

PRINCIPLES OF DAIRYING.

(*Time allowed, three hours*).

Seven questions only to be attempted.

1. What methods are in use for preparing and packing cream for sale ? Indicate the quality and keeping properties of the various packs.

2. In the pasteurisation of milk by the Holding Process it is possible to lose much of the cream line. What precautions are necessary to avoid this happening ?

3. Describe the changes which take place during the ripening of cream for churning. What advantages and disadvantages may result from ripening ?

4. Much of the butter made in power churns in Britain is weak in body. Give details of the points to which special attention should be paid in the management of the cream and subsequent churning process to eliminate this defect. (A complete description of cream management and churning is not wanted).

5. Draw up a score card for judging butter. Give your reasons for the points you have allotted.

6. Detail the optimum conditions you would prescribe for the ripening of blue veined cheese and describe the management in the curing room.

7. What is a cheese oven ? For what variety of cheese is it used ? What effect has it on the finished product ?

8. Compare and contrast the uses and reliability of the rennet, acidimeter and hot iron tests in the Cheddar making process.

DAIRY FACTORY MANAGEMENT & DAIRY ENGINEERING.

(*Time allowed, two hours*).

Five questions only to be attempted.

1. With the aid of sketches outline the essential features of two of the following types of milk evaporators—basket coil, forced circulation, climbing film and vapour recompression.

2. In what manufacturing process is the homogeniser utilised ? Give brief details of temperatures and pressures used in each case.

3. With the aid of diagrams describe the construction and operation of a Lancashire boiler.

4. Draw rough plans of the lay-out of a creamery capable of handling 10,000 gallons of milk per day for butter-making and skimmed milk powder. Indicate the capacity of the various items of plant provided.

5. Detail how you would organise the staff of the above creamery.

6. Briefly describe the preparation and freezing of an ice cream mix containing 8% butter-fat. As raw materials use skim milk, butter, spray dried separated milk powder, sugar and gelatine and show your calculations to produce 150 lbs. of mix.

CHEMISTRY AND PHYSICS.

(*Time allowed, two hours*).

All questions must be answered.

1. Give the chemical and physical properties of Phosphorus, and state—

   a. How found in nature.

   b. Compounds containing Phosphorus which are absorbed by animals.

   c. How the said compounds function in the animal economy.

2. Describe briefly the preparation of Ethyl Alcohol and the chemistry of the various processes involved.

3. What is Colostrum ? How does it differ in composition and microscopical appearance from normal milk ? What effect has heat upon it and which constituent is chiefly affected by heat ?

4. Name the important metals found in the mineral matter (ash) of milk. Which are likely to be deficient and why ? What steps would you take to correct such deficiencies ?

   Traces of copper are occasionally found in milk. Mention likely sources and its effect upon milk.

5. Name the physical conditions which affect the keeping qualities of Butter, mentioning briefly the effect of the said physical conditions. (Tabulate your answers).

6. A lever with arms 1¼ inches and 16 inches has a vessel containing 10 pints of milk hanging at the end of the shorter arm.

   What weight would be required at the end of the longer arm to balance the container and milk ? Weight of container 2.2 lbs. Weight of lever need not be considered.

   Using the above apparatus how could you determine approximately the specific gravity of a sample of cream ?

DAIRY BACTERIOLOGY.

(*Time allowed, two hours*).

Answer five questions only.

1. Describe the technique of the methylene blue reduction test. Mention two modifications of the method which have been recently proposed and indicate their effects upon the reduction period.

2. When examined microscopically by Breed's method a sample of milk taken aseptically from the udder of a cow is found to contain large numbers of bacteria. Mention two possible reasons for such an occurrence.

3. Compare bacteria, yeasts and moulds in their behaviour: (1) in acid and alkaline media; (2) towards air and absence of oxygen.

4. Describe in detail how you would propagate a starter from a commercial culture to the point at which it is ready for addition to cream.

5. What do you understand by the ripening of (*a*) cream, (*b*) hard pressed cheese? In both cases indicate the agencies mainly responsible for ripening.

6. In the manufacture of sweetened condensed milk what is the reason for the addition of sugar? To what micro-organisms is gas formation in sweetened condensed milk generally due?

DAIRY BOOK-KEEPING.

(*Time allowed, three hours*).

Three questions to be attempted; one must be No. 1, which should be completed before answering Nos. 2, 3 or 4.

MARKS WILL BE GIVEN FOR ACCURACY AND NEATNESS.

Question 1. Mr. S. Dickson makes up his accounts at Michaelmas (Sept. 29). From the following information prepare :—

(*a*) Balance Sheet at Michaelmas, 1934;
(*b*) Receipts and Payments Account for 1934-35;
(*c*) Statement of Accounts **or** Trading and Profit and Loss Account for 1934/35.
(*d*) Balance Sheet and Capital Account at Michaelmas, 1935.

N.B.— *You are required to make these various statements as informative as possible.*

Valuations.	*At Mich.,* 1934. £	*At Mich.,* 1935. £
Horses	64	50
Dairy Stock	908	925
Poultry	35	37
Machinery and Implements	283	275
Crops	360	325
Purchased Foods	16	5
General Stores	15	22
	£1681	£1639

At Michaelmas, 1934, sundry debtors owed him £73, he owed sundry creditors £98, he had £3 cash in hand, and a bank overdraft of £186.

Receipts for 1934/35.	£		£
Dairy Stock	45	Keep of Stock	34
Milk	884	Foodstuffs	12
Poultry and Eggs ...	82	Compensation for disturbance*	100
Old Implements ...	8	Sundry Farm Receipts	15
Rabbits	14	,, Private ,,	23
Farmyard Manure ...	14	Sundry Debtors at Mich., 1934	65
Crops	108		
			£1404

*Land taken for building purposes during currency of lease.

£5 was written off the sundry debtors at Michaelmas, 1934 as a bad debt and the balance was still owing at Michaelmas, 1935.

Payments for 1934/35.	£		£
New Implements	45	Insurances	11
Eggs Purchased	14	Water	13
Wages and N.H.I.	352	Sundry Farm Payments	55
Rent and Rates	78	,, Private ,,	314
Purchased Foods	317		
,, Manures	5	Sundry Creditors at Michaelmas, 1934	82
,, Seeds	21	Bank Charges	29
,, Stores	31		
Live Stock Expenses	14		£1,409
Repairs & small Renewals	28		

A discount of £3 was received on the sundry creditors as at Michaelmas, 1934, and the balance was still owing at Michaelmas, 1935.

Sundry Debtors at Mich., 1935.	£	**Sundry Creditors at Mich., 1935.**	£
Crops	26	Purchased Foods	3
Milk	64	,, Seeds	12
Poultry and Eggs	4	,, Stores	1
Dairy Stock	2	Rent	80
		Water	3
Hire work done for Landlord	63	Sundries	6
Brought forward from Mich., 1934	3	Brought forward from Mich., 1934	13
	£162		£118

Mr. Dickson put the value of his own work (apart from management) at £117. Farm produce valued at £15 was used in the farm household; and it was decided to charge his private account with £15 for the rental value of the farmhouse and with £20 for the use of the farm motor-car for private purposes.

Cash in hand at Michaelmas, 1935, was £2.

Question 2. Describe *briefly* the kind of dairy farm with which you are most familiar and give an account of either (*a*) the method of book-keeping in operation; or (*b*) the method of book-keeping that you think would be most suitable.

Question 3. Describe the method of book-keeping that you would recommend for a dairy factory in which the bulk of the milk is made into cheese. How would you use the accounts in order to test the efficiency of the factory management?

Question 4. Give in skeleton form (without figures) a suitable method of drawing up a cost account for milk production. How would you use this account in order to test the efficiency with which milk production was being carried on?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT SOMERSET FARM INSTITUTE, CANNINGTON, MONDAY, TUESDAY, AND WEDNESDAY, MARCH 23RD, 24TH AND 25TH.

EXAMINER :

ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Describe how you would improve the milk produced on an ordinary farm, so that it may reach accredited standard.

2. What do you mean by the following terms: *a* Bacterial Count; *b* Ripening of Cream ; *c* Pasteurized Milk ?

3. What are the essential points in the management, which would insure a good quality butter ?

4. What sample tests can be taken in order to control the cleanliness and quality of the milk supply ?

5. What are the chief causes of the following faults in butter : *a* Streakyness ; *b* Loose open texture ; *c* Rancidity ; *d* Lack of colour ?

6. What do you know of the manufacture of Clotted cream ?

7. How would you insure the activity of a starter in a buttermaking dairy ?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT SOMERSET FARM INSTITUTE, CANNINGTON, MONDAY, TUESDAY AND WEDNESDAY, MARCH 23RD, 24TH AND 25TH.

EXAMINER :

ALEC TODD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. To what extent does the cleanliness of the milk influence the quality of cheese made from it ?
2. How would you treat the milk for cheese-making, from the time it leaves the cow until ready for rennetting ? In this case under farm conditions.
3. What faults of manufacture would the following denote in a Cheddar cheese : *a* Hard dry cheese ; *b* Soft and bulging ; *c* Cracked coat ; *d* Blue veining ?
4. What tests can be used for ascertaining the acidities of milk, whey, curd ; discuss possible inaccuracies of these tests ?
5. What yield of Cheddar and Caerphilly ripe cheese would you get from 100 gallons of milk. What factors cause variation in the yield of cheese from the gallon of milk ?
6. State briefly the reasons for :—
    - *a* Top stirring the milk after rennetting.
    - *b* Cutting the coagulum with American knives.
    - *c* Salting the curd.
    - *d* Milling the curd.
    - *e* Pressing the curd in the mould.
7. What is the essential difference in the manufacture of a blue veined cheese as compared with a Caerphilly ?
8. How many Pont l'Evêque cheeses would you expect from 10 gallons of milk. What points of manufacture make this cheese of longer keeping quality than a Coulommier ?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE FARM INSTITUTE, SPARSHOLT; ON WEDNESDAY, THURSDAY AND FRIDAY, JULY 8TH, 9TH AND 10TH.

EXAMINER: MISS D. V. DEARDEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. How can the butter ratio of a milk supply be demonstrated practically? Give figures and calculations which might occur when carrying out such a demonstration.

2. What stipulations are there with regard to the maximum and minimum composition of dairy produce offered for sale?

3. What essential differences are there in separator bowls? Which type do you prefer and for what reasons?

4. Which defect of butter would you consider the most serious? What steps can be taken to prevent its occurrence?

5. What points should be considered when dairy utensils are being selected?

6. What errors in management and manufacture may cause loss of fat during the production of butter?

7. What temperature would you use for the various stages in the process of butter making?

8. Why is the production of a grain recommended?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE FARM INSTITUTE, SPARSHOLT; ON WEDNESDAY, THURSDAY AND FRIDAY, JULY 8TH, 9TH AND 10TH.

EXAMINER: MISS D. V. DEARDEN.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. Give the percentage composition of milk. What purpose does each constituent serve in the manufacture of cheese?
2. Give concise instructions for the care of starter.
3. What alterations are necessary in the manufacture of Cheddar cheese from milk containing a high percentage of solids as compared with one containing a normal amount. At what seasons of the year would such alterations be necessary?
4. Indicate how different characteristics are obtained in cheese. Illustrate your answer by reference to specific varieties.
5. Give diagrams to show the construction of a steam heated double jacketed vat.
6. Why is a reliable milk supply particularly essential in the manufacture of blue veined cheese?
7. When adopting pasteurization of milk intended for cheese making which method of pasteurizing would you recommend? Give reasons for your choice.
8. What instruments are used to determine temperature and humidity? What readings of these instruments would you expect in ripening rooms intended for hard pressed, blue veined and soft cheese respectively? If such readings were not considered satisfactory what steps could be taken to create suitable conditions?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE SEALE-HAYNE AGRICULTURAL COLLEGE, NEWTON ABBOT; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 13TH, 14TH AND 15TH.

EXAMINER:
MISS V. E. CHEKE.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Discuss the most suitable methods of sterilization for (*a*) starter utensils, (*b*) milk churns to be returned clean to depôt.
2. What are the most usual causes of streakiness in (*a*) farmhouse, (*b*) factory, butters?
3. What are the essential conditions for the satisfactory ripening of cream? Describe suitable vessels for the purpose.
4. Discuss the effects of "cooling" on milk.
5. Describe the Gerber Test for Fat Content of milk. Presuming the Specific Gravity of a milk sample to be 1.030, with a fat content of 3.7 per cent., how would you determine the Total Solids?
6. What apparatus would be required by a farmer in the daily production of fifty gallons of "Accredited" milk?
7. How would you know when a starter is (*a*) ready for use, (*b*) no longer fit for ripening purposes? Describe how you would establish a starter for daily use.
8. What are the most usual causes of bad flavour in butter? How can these be prevented?
9. Give the following;—
    1. Percentage acidity of cream for churning.
    2. Percentages of fat in acid and sweet buttermilks.
    3. Temperatures of pasteurization, of milk for sale, and cream for buttermaking.
    4. Legal Minimum Fat and Solids-not-Fat Contents in milk for sale.
    5. Amount of salt required for brining, and dry-salting, of butter.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE SEALE-HAYNE AGRICULTURAL COLLEGE, NEWTON ABBOT: ON MONDAY, TUESDAY AND WEDNESDAY, JULY 13TH, 14TH, AND 15TH.

EXAMINER:
MISS V. E. CHEKE.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. Compare the ripening of blue-veined and hard-pressed cheeses. What percentage of atmospheric humidity is required for both during ripening, and how may this be known, and maintained?

2. What type of cheese would you prefer to manufacture from (*a*) milk poor in fat, (*b*) milk acid and tainted? Describe any necessary modifications in manufacture.

3. Describe the Rennet Test. Compare its value with the Caustic Soda Test in the deduction of "ripeness" of milk.

4. Discuss causes of the following defects in the ripe cheeses:—
    1. Hard dry texture of Cheddar.
    2. Soft close texture of Cheshire.
    3. Brown internal discolouration of Stilton.

5. What are the purposes of the following:—
    1. Ripening of milk before addition of rennet.
    2. Scalding of curd in the whey.
    3. "Cheddaring" of curd.
    4. Bandaging of cheese.
    5. Turning of cheese during ripening?

6. What simple tests would you use for milk to discover its relative cleanliness, and suitability for cheesemaking?

7. List the apparatus required for making and pressing daily four 50-lb. Cheddar cheeses. Of what substances are the following constructed:—
    Cheese moulds and followers.
    Milk churns.
    Starter cans?

8. What are the chief points of difference between a "Soft" and "Cream" cheese? How are the latter packed for sale?

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE STUDLEY COLLEGE, WARWICKSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 20TH, 21ST AND 22ND.

EXAMINER:
MISS M. C. TAYLOR.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. What tests would you employ to ensure the suitability of milk for manufacture? What do you understand by Specific Gravity? Describe one method of determining this.

2. Write brief notes on:—
   (*a*) Annatto, (*b*) Churning temperatures, (*c*) Salt, (*d*) Government Standards.

3. What do you understand by cream ripening? What are the commercial advantages of ripening?

4. What faults are common to butter? How can these be avoided?

5. Give reasons for variation in yield of butter during manufacture. How much butter would you expect to obtain from 50 gallons of cream with average fat content?

6. How would you judge a sample of butter? Give scale of points.

7. Give the percentage of fat in:—
   (*a*) Separated milk, (*b*) Skim milk, (*c*) Butter milk.
   How would you remedy excess of fat in each of these three?

8. Describe the principle on which the Separator bowl works. Illustrate your answer.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE STUDLEY COLLEGE, WARWICKSHIRE ; ON MONDAY, TUESDAY AND WEDNESDAY, JULY 20TH, 21ST AND 22ND.

EXAMINER :
MISS M. C. TAYLOR.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. What are the new designations of milk in the Milk & Dairies Order, 1936 ?
2. What do you understand by Accredited Milk ? Write brief notes how a producer can maintain this standard in practice.
3. Describe the management of Wensleydale Cheese in the ripening room.
   How would you account for the following defects :—
   (*a*) Hard—minus blue veining.
   (*b*) Brown discolouration in a ripened cheese ?
4. Why does cheese vary in yield during the season's make ? Give causes and suggested remedies for the following common troubles in the making of Cheddar cheese :—
   (*a*) Slow Cheese, (*b*) Fast Cheese, (*c*) Tainted Cheese, (*d*) Weak Texture, (*e*) Cheese lacking in quality when ripened.
5. Describe the method you employ of making Starter. If you were responsible for the sale of Commercial Starter how would you satisfy yourself that the culture was of the right type ?
6. Give plant required for a cheesemaking dairy dealing with 500 gallons of milk daily. State approximate price. What arrangements would you make for the disposal of bye products ?
7. State the acidities you would develop at five important stages in the making of :—
   (*a*) Wensleydale, (*b*) Cheshire.
8. What variety of soft cheese do you consider is the most profitable to make ? Describe manufacture and treatment during ripening.

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE AGRICULTURAL INSTITUTION, USK, MONMOUTHSHIRE; ON MONDAY, TUESDAY AND WEDNESDAY, AUGUST 10TH, 11TH AND 12TH.

EXAMINER:
MISS A. SHEPPARD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. Why is milk considered a "perfect food"? What points in production ensure its being a safe article of diet?
2. What are the advantages of ripening cream for churning? How would you control the ripening of two gallons of cream produced daily, and churned twice weekly?
3. What are the chief differences in manufacture of :—
   (*a*) factory butter, (*b*) farm-house butter?
4. What points would you notice when purchasing butter-making utensils, and what treatment of these utensils ensures efficiency when in use?
5. What conditions regulate the churning temperatures of cream? What effect on the finished product would result from :—
   (*a*) Too high a churning temperature,
   (*b*) Too low ,, ,, ,, ?
6. Give the causes of variation in the fat content of milk. How would you obtain a representative sample of milk from one cow and test it for fat content?
7. What might be the cause of the following :—
   (*a*) Separated milk containing .6% fat,
   (*b*) Streaky butter,
   (*c*) Clotted cream becoming sour before skimming,
   (*d*) Cream failing to churn into butter?
8. What equipment is essential on a farm producing Accredited milk?
9. What is the approximate fat and water content of butter? What would an excessive amount of water in butter indicate?
10. How would you maintain an active "starter" in a butter-making factory?

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE AGRICULTURAL INSTITUTION, USK, MONMOUTHSHIRE: ON MONDAY, TUESDAY, AND WEDNESDAY, AUGUST 10TH, 11TH AND 12TH.

EXAMINER:
MISS A. SHEPPARD.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible. Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks, and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1 What conditions are necessary for the successful manufacture of :—

(*a*) Hard pressed cheeses, (*b*) Soft cheeses ?

2. What results might the following have in a ripe Cheddar cheese :—

Milk containing 2% fat,
Milk containing 5% fat,
Milk containing .3% acidity ?

3. Describe the manufacture of either a Wensleydale or a Caerphilly cheese.

4. How would you treat the following cheeses from salting and moulding until ripe :—

1. Stilton, 2. Caerphilly, 3. Cheddar, 4. Cheshire ?

5. How would you endeavour to get rid of cheese flies ? Under what conditions do they attack cheeses ?

6. On a cheesemaking farm, the season for manufacture is from April to October. How would you store all the cheesemaking utensils during the winter months ?

7. A dairyman purchases milk from several farmers for manufacture into hard-pressed cheese. What points of inspection and routine testing should be done by the dairyman purchasing the milk ?

8 What are the advantages of using a starter for cheesemaking ? What are the indications that a starter is deteriorating ?

9. What do you consider the most profitable method of whey disposal on a farm making 100 gallons of milk daily into Cheddar Cheese ?

10. Define the following :—Annatto, Whey butter, Colostrum.

EXAMINATION FOR CHEESEMAKING CERTIFICATE AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY AND WEDNESDAY, SEPTEMBER 7TH, 8TH AND 9TH.

EXAMINER:
MISS J. STUBBS.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce.*

QUESTIONS.

1. What is starter? Describe its daily preparation.
2. Give the treatment of a Cheddar and Cheshire cheese from the time of milling until taken to the ripening room.
3. What percentage of fat would you prefer in your milk for hard cheese? Would you vary your method of manufacture when dealing with rich milk?
4. Give a scale of points suitable for judging Cheshire cheese.
5. What conditions are necessary to enable you to ripen Stilton successfully?
6. Describe and show by diagram the result of the following faults in Cheddar cheese two months old:—

   Milled at an acidity of 0.45
   ,, ,, ,, ,, ,, 1.2

7. Write a brief essay on :—" The food value of milk."
8. How would you make a Pont l'Evêque cheese? State the quantity of milk, and weight of cheese when ready for sale.

EXAMINATION FOR BUTTERMAKING CERTIFICATE AT THE BRITISH DAIRY INSTITUTE, READING; ON MONDAY, TUESDAY AND WEDNESDAY, SEPTEMBER 7TH, 8TH AND 9TH.

EXAMINER:
MISS J. STUBBS.

Three hours are allowed for this paper.

Candidates are requested to make their answers as brief as possible Each answer should be written on a separate sheet of paper, and the sheets should be fastened together in order in the left-hand corner. The top sheet should bear the name of the Candidate.

Each question carries the same number of marks and Candidates gaining not less than 60 per cent. will pass.

Candidates will subsequently be examined *viva voce*.

QUESTIONS.

1. Describe how you would proceed to ensure the production of a milk with a low bacterial count.
2. What apparatus would you require in a dairy where the milk from three Jersey cows is made into clotted cream daily ?
3. Give the butter ratio of the milk from the following breeds of cattle :—Ayrshire, Guernsey, Shorthorn.
4. Write short notes on the cause of the following butter faults :—white specks, streakiness, excess of moisture, rancidity.
5. What percentage of fat would you expect to find in :—thick cream, cream for churning, separated milk, hand skimmed milk, butter, cheddar cheese ?
6. From what does butter derive its natural colour ? When is it advisable to use artificial colouring ?
7. What is the chief cause of cream taking a long time to churn ? How can you remedy this defect ?
8. How would you treat cream from the time it leaves the separato until it is ready to churn ?

The British Dairy Farmers' Association

PRESIDENT, 1937.—LORD ELTISLEY, K.B.E., Croxton Park, Cambridgeshire.

VICE-PRESIDENTS.

EARL OF IVEAGH, C.B., C.M.G., 11, St. James's Square, S.W. 1.
EARL OF LONSDALE, K.G., G.C.V.O., Lowther, Penrith.
VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E., Lydney Park, Glos.
Major LORD O'HAGAN, 16, Eaton Square, London, S.W. 1.
LORD DESBOROUGH, K.G., G.C.V.O., Taplow Court, Taplow, Bucks.
LORD DARESBURY, C.V.O., Walton Hall, Warrington.
LORD ROWALLAN, Rowallan, Kilmarnock.
S. PALGRAVE PAGE, J.P., 27, Oakwood Court, London, W. 14.
G. TITUS BARHAM, Sudbury Park, Wembley, Middlesex.
JOHN EVENS, J.P., Burton, Lincoln.

COUNCIL.

THE PRESIDENT. THE VICE-PRESIDENTS.

BARNETT, J., Brindley Farm, Nantwich.
BOWES, Mrs. M., 14, Thornhill Terrace, Sunderland.
BRIGGS, CAPT. W., Littlecote, Petworth, Sussex.
BROCKLEHURST, W. S., J.P., Grove House, Bedford.
CLARE, A. J., J.P., Market Place, Wells, Somerset.
CODD, J. F., Hooklands Estate, Scaynes Hill, Haywards Heath, Sussex.
EDWARDS, SIDNEY, Tynewydd, Castleton, Cardiff.
EVANS, R. H., B.Sc., Barclays Bank Chambers, Pwllheli, Carnarvonshire.
EVENS, JOHN, Junr., Burton, Lincoln.
FARMER, J. T. H., Devonia, Cippenham, Slough.
GLOSSOP, C. W. H., J.P., The Lund Dairies, Bramwith, near Doncaster.
GOLDING, W. J., Bowens, Penshurst, Kent.
GOODE, C. N., The Croft, Bedford Road, Rushden, Northants.
HOBSON, W. H., Noyna Mede, Nantwich.
JERVOISE, Mrs. B., Herriard Park, Basingstoke.
JESSOP, W. F., Thomley Hall, Aylesbury, Bucks.
LAMB, SIR JOSEPH Q., J.P., M.P., Oaklands, Eccleshall, Staffs.
MACKINTOSH, JAMES, National Institute for Research in Dairying, Shinfield.
NELL, Capt. W. A., Fir Island, The Ridgeway, Mill Hill, London, N.W.7.
OLIVER-BELLASIS, Capt. R., J.P., Shilton House, Coventry.
PEGLER, H. S. HOLMES, Coombe Bury, Foley Road, Claygate, Surrey.
REEVES, Mrs. M., Knapp House, Clevedon, Som.
ROBINSON, H. G., Midland Agricultural College, Sutton Bonington.
SADLER, JAMES, J.P., Brassey Hall, Willaston, Nantwich.
SANDERSON, F. H., Eshott Hall, Felton, Northumberland.
SANKEY, G. C., Down Lodge, Fairlight, Hastings.
SHANKS, ROBERT, Halland Park, East Hoathly, Sussex.
SHIRLEY, J. W., Silverton House, Woughton, Bletchley, Bucks.
STANBURY, P., Newton Barton, Drewsteignton, Exeter.
STAPLETON, J. G., Owles Hall, Crews Hill, Middlesex.
STEEL, J., Manor Farm, Grazeley, Reading.
STRUTT, G. M., New House, Terling, Chelmsford.
SUTTON, E. P. F., Erlegh Park, nr. Reading.
WALKER, ELDRED G. F., The Hollies, Chew Stoke, Somerset.
WHITE, S. T., Sock Dennis Farm, Ilchester, Taunton.
WILLS, G., Home Farm, Haccombe, Newton Abbott.

Delegates of Affiliated Societies.

Amalgamated Master Dairymen, Limited :
EVANS, J. MORGAN, 2A, Oxford Road, Ealing, London, W.5.

Ayrshire Cattle Herd Book Society :
MONTGOMERIE, A. W., Westburn, Cambuslang, Glasgow.

British Friesian Cattle Society :
GILBERT, F. W., The Manor, Chellaston, Derby.

British Goat Society :
PALMER, T. W., 10, Lloyd's Avenue, London, E.C. 3.

British Kerry Cattle Society :
STEEL, N. R., Hooklands Estate, Scaynes Hill, Haywards Heath.

Cambridgeshire and Isle of Ely Agricultural Society :
WEIR, J. S., Hall Farm, Bottisham.

English Guernsey Cattle Society :
RUBECK, O. P., Valencia, Meath Green, Horley, Surrey.

English Jersey Cattle Society :
LATTER, K. A., Weald Place, Sevenoaks, Kent.

National Association of Creamery Proprietors and Wholesale Dairymen, Inc.
GOSNEY, G. F., Room 234, Shell Mex House, Victoria Embankment, W.C.2.

Red Poll Cattle Society :
BURRELL, CAPT. W. R., Knepp Castle, Horsham, Sussex.

Shorthorn Society of the United Kingdom of Gt. Britain and Ireland.
HARROP, CAPT. N. M., Garthgynan, Ruthin, N. Wales.

South Devon Herd Book Society :
WILLING, T., Bulleigh Barton, Ipplepen, Newton Abbott.

Trustees.

VISCOUNT BLEDISLOE, P.C., G.C.M.G., K.B.E., Lydney Park, Gloucestershire.
LORD DARESBURY, C.V.O., Walton Hall, Warrington, Lancs.
S. PALGRAVE PAGE, J.P., 27, Oakwood Court, London, W. 14.

Consulting Analytical Chemist and Dairy Bacteriologist.

T. J. DRAKELEY, D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I.,
28, Russell Square, London, W.C. 1.

Consulting Veterinary Surgeon.

Professor G. H. WOOLDRIDGE, Royal Veterinary College, London N.W. 1.

Solicitors.

GREGORY, ROWCLIFFE & Co., 1, Bedford Row, London, W.C. 1.

Auditor.

HERBERT J. PAGE (Kemp, Chatteris, Nichols, Sendall & Co.), 36, Walbrook,
London, E.C. 4.

Bankers.

LLOYDS BANK LTD., 222, Strand, London, W.C. 2.

Secretary.

FREDERICK J. BULL, 28, Russell Square, London, W.C. 1.

STANDING COMMITTEES, 1937

The President and Vice-Presidents are ex-officio Members of all Committees.

FINANCE AND GENERAL PURPOSES.

Mr. J. G. Stapleton (*Chairman*).
,, W. S. Brocklehurst.
,, Sidney Edwards.
,, R. H. Evans.
Mr. J. T. H. Farmer.
,, W. J. Golding.
,, W. H. Hobson.
,, W. F. Jessop.
Sir Joseph Q. Lamb, M.P.
Capt. W. A. Nell.
Capt. R. Oliver-Bellasis.
Mr. T. W. Palmer.
,, H. S. Holmes Pegler.
Capt. G. C. Sankey.
Mr. R. Shanks.

EDUCATION, JOURNAL, AND MEDAL SCHEME.

Mr. R. H. Evans (*Chairman*).
Mrs. M. Bowes.
Capt. W. Briggs.
Mr. A. J. Clare.
,, J. F. Codd.
Mr. S. Edwards.
Mrs. Jervoise.
Mr. J. Mackintosh.
Mrs. M. Reeves.
Mr. H. G. Robinson.
Mr. J. Sadler.
Capt. G. C. Sankey.
Mr. R. Shanks.
,, J. Steel.
,, E. G. F. Walker.

Mr. Alec Todd and Dr. T. J. Drakeley, *ex-officio.*

CONFERENCE.

Mr. John Evens, Junr.
,, J. T. H. Farmer.
,, G. F. Gosney.
,, W. H. Hobson.
Mrs. Jervoise.
Capt. W. A. Nell.
Mrs. M. Reeves.
Mr. H. G. Robinson.
,, J. Sadler.
,, J. Sanderson.
Capt. G. C. Sankey.
Mr. J. W. Shirley.
,, P. Stanbury.
,, E. G. F. Walker.
,, G. Wills.

POULTRY AND PIGEON.

Mr. W. S. Brocklehurst (*Chairman*).
,, H. Corrie.
,, G. E. Danks.
,, S. Edwards.
,, C. N. Goode.
Mr. W. J. Golding.
,, W. F. Holmes.
,, W. H. Johnston.
,, A. J. Major.
,, F. H. Page.
Mr. T. W. Palmer.
,, H. G. Robinson.
Capt. G. C. Sankey.
Mr. J. Taylor.
,, S. T. White.

Mr. J. H. Brown, *ex-officio.*

SELECTION OF JUDGES, &c.

Mr. J. Barnett.
Mrs. M. Bowes.
Mr. S. Edwards.
,, J. T. H. Farmer.
,, F. W. Gilbert.
Mr. W. H. Hobson.
,, W. F. Jessop.
,, H. S. Holmes Pegler.
Mrs. M. Reeves.
Mr. J. Sadler.
Mr. R. Shanks.
,, P. Stanbury.
,, G. M. Strutt.
,, E. G. F. Walker.
,, S. T. White.

Mr. J. Mackintosh, *ex-officio.*

BRITISH DAIRY INSTITUTE JOINT.

*Mr. S. Edwards. (*Chairman*).
*Dr. T. J. Drakeley.
*Mr. W. F. Jessop.
†Prof. H. D. Kay.
†Mr. J. Mackintosh.
†Prof. H. A. D. Neville.
*Mr. T. W. Palmer.
†Prof. R. Rae.
*Capt. G. C. Sankey.
†Mr. A. P. Shaw.
†Dr. T. F. Sibly.
*Mr. J. G. Stapleton.
* ,, J. Steel.
† ,, L. N. Sutton.

* Representing British Dairy Farmers' Association.
† Representing University College, Reading.

PARLIAMENTARY.

(To consist of Members of the Council in both Houses of Parliament and the Chairman of each Standing Committee, with power to add to their number.)

The British Dairy Farmers' Association

LIST OF MEMBERS

A. 1 and Dollis Dairies, Ltd. (represented by F. J. de Rivaz), High Road, Whetstone, N. 20.
Abbey, Mrs. Arthur, Downe Hall, Roydon, Essex (L.M.).
Abbey, W. R., & Son, Croft Farm, Hessay, Yorks.
Abbot Bros. (represented by J. Morris Abbot), Thuxton, Norfolk.
Abbott, W. J., Troll House, Horsham, Sussex.
Abbotts, Miss L., Hill View, Broughton Road, Banbury, Oxon.
Ackers, Major Charles P., Huntley Manor, Gloucester.
Acland, Rt. Hon. Sir Francis D., Bart., P.C., M.P., Sprydoncote, Exeter.
Adams, Hon. Mrs. C. M. L., Bradfield, Willand, Cullompton, Devon.
Adamson, W., Harleyholm, Thankerton, Lanarkshire.
Adcock, Mrs. V. M., Grenehurst Park, Capel, Surrey.
Adlercron, Brig.-Gen. R. L., C.M.G., D.S.O., Culverthorpe, Grantham.
Alexander, Mrs. E., Old Wilsley, Cranbrook, Kent.
Alexander, G. C., Manor House, Winterbourne Stoke, Salisbury.
Alexander, H. C., Braes Farm, South Nutfield, Surrey.
Alexander & Angell (represented by G. S. Alexander), Cranham Corner, Cranham, Gloucester.
Alfa-Laval Co., Ltd. (represented by C. B. T. Hembry), Great West Road, Brentford.
Allan, A. Y., Aitkenbar, Dumbarton.
Allday, C. J., Fotheringhay Manor, near Peterborough.
Allen, A. D., Rawlings Farm, Seer Green, near Beaconsfield, Bucks.
Allen, H. C., Brick House Farm, Burwash, Sussex.
Allsup, Miss E., Whittingham Hall, near Preston, Lancs.
Allsup, J., Whittingham Hall, near Preston, Lancs.
Alpass, J. R. J., Manor House, Berkeley, Glos.
Aluminium Plant & Vessel Co., Ltd. (represented by J. W. Wilson), Point Pleasant, Wandsworth, S.W.18.
Amory, Sir John, Bart., Knightshayes Court, Tiverton, Devon.
Anderson, Sir John, Bart., St. James's Court, Buckingham Gate, S.W.1.
Anderson, J. H., Ministry of Agriculture, Regent Street, Cambridge.
Andrew, J. M., County Council Farm, Hutton, Preston, Lancs.
Andrews, A., Little Ropers, Shawford, Winchester.
Andrews, A. G., Hatfield, Leominster, Herefordshire.
Andrews, Miss M. E., Chalvington Manor, Hellingly, Sussex.
Anjaria, D. H., State Dairy and Poultry Farm, Devgad Baria, Bombay, India.
Ann's Farm House Ltd. (represented by K. Masten), Cropwell Bishop, Notts.
Aplin & Barrett, Ltd., Yeovil.
Appleyard, R., Priory Farm, Ixworth, Bury St. Edmunds.
Argent, W. A., "Miramar," Mevagissey, Cornwall.
Armitage, F., Bank Top Saw Mills, Salem, Oldham.
Arnold, T. G., 314, Warwick Road, Solihull, Warwickshire.
Arthurs, E. G., Hartpury, Gloucester.
Ashton, H. S., Trueloves, Ingatestone, Essex.
Ashton, Lt.-Col. S. E., Scotsgrove House, Thame, Oxon.
Assheton, R. C., Downham Hall, Clitheroe, Lancs. (L.M.).

Astley, Reginald B., The Milebrook, Bucknell, Shropshire, (L.M.).
Astor, Viscount, Cliveden, Taplow, Bucks.
Atherton, W. R., 100, Evering Road, Stoke Newington, N.16.
Atkins, Lt.-Col. E. C., Stretton House, Stretton Baskerville, Hinckley.
Atkinson, H., Park Pedigree Poultry Farm, Park, Donyatt, Ilminster.
Atkinson, R. L., 10 & 12, Hotel Street, Leicester.
Atkinson, T. C. D., Perkins Clean Milk Equipment Co., Ltd., 58 Nottingham Road, Derby.
Austin, Hodgkinson & Co. (represented by J. Pattinson), County Stores, Market Head, Derby.
Aveling-Barford, Ltd. (represented by Wm. G. Barford), Grantham.
Ayre Brothers (represented by A. Lickiss), The Avenue, High Street, Hull.

BADDILEY, T., Kelton Forest Farm, Worksop.
Bailey, John, Hullbrook, Shamley Green, Guildford.
Bailey, R. G., 148, Audrey House, Ely Place, London, E.C.1.
Baird, John, Birnieknowe, Auchinleck, Ayrshire.
Baker, A. J. P., Woodrow Farm, Uffculme, Devon.
Baker, Charles, Delegarde Farm, Westerham, Kent.
Baker, Philip, Wildmoor, Alcester Road, Stratford-on-Avon.
Ball, Cecil, Market Place, Oakham, Rutland.
Ball, J. H., May Villa, Ribbleton, Preston.
Ball, Miss L. C., Cumberland and Westmorland Farm School, Newton Rigg.
Bally, Miss M. P., County Offices, Haverfordwest, Pem.
Banyard, Richard, Nelmes Farm, Romford, Essex.
Barber, Arthur, Carlton Hall, Worksop.
Barber, Capt. F., Rotherwood Poultry Farm, Balmoral Road, Morecambe.
Barbour, Geo., Auchengibbert, Crocketford, Dumfries.
Barclay, A., Manor Farm, Compton, Newbury, Berks.
Barclay, Edward Exton, Brent Pelham Hall, Buntingford, Herts.
Barclay, Lt.-Col. R. W., Bury Hill, Dorking, Surrey.
Barham, Colonel Arthur S., C.M.G., V.D., J.P., Hole Park, Rolvenden, Kent.
Barham, G. Titus, Sudbury Park, Wembley, Middlesex (L.M.).
Barnard, Miss O. M., The Coffee House, Market Place, Wokingham.
Barnes, George, Hatherleigh, Wincanton.
Barnes, Henry, 25, St. Quintin Avenue, North Kensington, London, W.10.
Barnett, A., Rose Farm, Worleston, Nantwich.
Barnett, H., Overton Hall, Malpas, Cheshire.
Barnett, J., Brindley Farm, Nantwich.
Barnett, J. C., The Hulby, Tybroughton, Whitchurch, Salop.
Bartlett, S., National Institute for Research in Dairying, Shinfield, nr. Reading.
Barton, E. G., Saundby, Retford, Notts.
Bastard, William, Woodlands, Barkby, Leicester.
Bateman, Mrs. E. E., Sherbourne House, Allesley, Coventry.
Bates, O. F., Ltd. (represented by F. J. Broomhead), 71, Fleet Street, E.C.4.
Bateson, Mrs. J. K., Lucas Green Manor, West End, Chobham, Surrey.
Bath, Robert, Glastonbury.
Batho, F., Greenbank, Gobowen, Salop.
Bathurst, Lt.-Col. The Hon. B., 38, Lower Belgrave Street, London, S.W.1.
Batten, E. J., Sanatorium Farm, Nayland, Suffolk.
Batten, O. A., Cralle Place, Vines Cross, Sussex.
Baxendale, Lt.-Col. J. F. N., Froxfield Green, Petersfield, Hants.
Bayley, Mrs. C., Willaston Hall, Nantwich.
Bayman, P. A., Shenfield Place, Shenfield, Essex.
Beatty, A. Chester, Calehill Park, Little Chart, Kent. (Agent: F. Watson).
Beatty Bros., Ltd. (represented by W. J. Martin), Park Royal Road, N.W.10.
Beaufort, Duke of, Badminton, Glos.
Beckett, John, Rode Heath, Stoke-on-Trent.

Beckett, Stanley, The Dairy House, Edge, Malpas, Cheshire.
Beckett, T. E., Hall o'Coole, near Nantwich, Cheshire.
Bedford, Geo. Smith, 22, The Forbury, Reading.
Beer, W. R., Pill Dairy, Newport Road, Barnstaple.
Bell, W. E. D., 167, Gloucester Terrace, Hyde Park, London, W. 2.
Bellamy, Douglas R., Sandfield, Chislehurst, Kent.
Bennion, Miss Nellie, Cheshire School of Agriculture, Reaseheath, Nantwich.
Bentall, C. E., Five Corners, Wickham Bishops, Essex.
Bentall, E. E., The Old Rectory, Wickham Bishops, Essex.
Benyon, H. A., Ufton Court, near Reading.
Berkeley, R. G. W., Spetchley Park, Worcester.
Berks. Co-operative Poultry Producers, Ltd. (represented by J. F. Wood), Birchdene, Finchampstead Road, Wokingham.
Berry, Grosvenor, Mount Bures, Bures, Suffolk.
Bethell, G., Crown Works, Boundary Place, Liverpool 7, Lancs.
Betts, Walter, Folwer Mill, Charlbury, Oxon.
Bicol, Ltd. (represented by R. Stockil), Riby Street, Grimsby.
Bill, Ernest E., New Mills Dairy, Ledbury, Herefordshire.
Billyard-Leake, Comdr. E. W., Hollybush House, Hollybush, Ayrshire (L.M.).
Bingley, Lord, Bramham Park, Boston Spa, Yorks.
Birchall, Miss E., 135, Manchester Road, Lostock-Gralam, Northwich, Cheshire.
Birkbeck, Major H. A., Westacre Abbey, King's Lynn (L.M.).
Birkett, J. T., Cowgate Dairy Farm, Newcastle on-Tyne.
Birley, E. H., Manor Farm, Bledington, Kingham, Oxon.
Birmingham Dairy Co., Limited (represented by W. T. Harrison), Dalton Street, Birmingham.
Birmingham Ham & Bacon Curing Co. (represented by M. N. Claddo), 35, Birmingham Road, Sutton Coldfield.
Birnstingl, C., Compton Farm, Compton Bassett, Calne, Wilts.
Black, Miss M. E., Reaseheath, Nantwich, Cheshire.
Black, Sir R. A. S., Bart., Midgham Park, Reading (L.M.).
Blackburn, Miss E. M., Cumberland and Westmorland Farm School, Newton Rigg, Penrith.
Blackett, S., Bunkers Hill Farm, Boughton, Northampton.
Blackshaw, J. F., The Elms, Whitchurch, Shropshire.
Blackwell, G., Strand Lodge, Epsom Downs, Surrey.
Bland, G. R., County Offices, Oxford.
Bledisloe, Viscount, P.C., G.C.M.G., K.B.E., Lydney Park, Gloucestershire (L.M).
Blewitt, G., Boxted Hall, Colchester.
Blofield, T. R. C., Hoveton Home Farm, Wroxham, Norfolk.
Blow, J. J., 10/12, Phœnix Place, London, W.C.1.
Blundell, Stanley, Green Gore, Battle, Sussex.
Bolesworth Trust Co., Bolesworth Castle, Tattenhall, Chester.
Bolitho, Lt.-Col. E. H. W., Trengwainton, Heamoor, Cornwall.
Bolton, Herbert James, Waltham Cross, Hertfordshire.
Bond, A. E., Lloyds Bank Chambers, New Street, Birmingham (L.M.).
Bone, John, Sheepcotes, Little Waltham, Chelmsford.
Booth, G. W., Ion Farms, Lower Gravenhurst, Ampthill, Beds.
Booth, Miss C. A. M., Yore Croft, Ripon, Yorks.
Borlase, W. J., Wootton Manor, Henley-on-Thames.
Borthwick, William, The Old Rectory, Hatfield, Herts.
Boscawen, Lady Margaret F. L., Mount Street, London, W. 1.
Bostock, E., Gibbet Hill, Kenilworth, Warwickshire.
Bostock, Harold S., Haslington, Crewe.
Bourne, T., Baddington, Nantwich, Cheshire.
Boutflour, R., B.Sc., Royal Agricultural College, Cirencester.
Bouverie, Miss M. H., Delapré Abbey, Northampton (communications to W. Ansell, Estate Office, Delapré Abbey, Northampton.

Bowen, W., Lan House, near Carmarthen.
Bowen-Colthurst, Miss H. G. B., Vernons, Chappel, near Colchester.
Bowen-Colthurst, Miss P. de B., Layer-de-la-Haye, Colchester.
Bowers-Taylor, Miss E., Lancs. C.C. Dairy School, Hutton, near Preston.
Bowes, Mrs. M., 14, Thornhill Terrace, Sunderland (L.M.).
Bowser, Benjamin G., Scothern Manor, Lincoln (L.M.).
Bowyer, C., Whitelocks Farm, Warfield, Berks.
Bradshaw, Mrs. C., Bystock, near Exmouth, Devon.
Bradshaw, S. G., 6, Western Road, Hove, Sussex.
Brander, Miss Anna E. L. (L.M.).
Brassey, Sir Leonard, Bart., 42, Upper Grosvenor Street, London, W. 1.
Brassey, Capt. R. B., J.P., Cottesbrooke Hall, Northampton (L.M.).
Bray, Miss Evelyn, County Education Office, The Castle, Exeter.
Brazier, H., Ley House, Grandborough, Winslow, Bucks.
Brazil, W., Kidmore Game Farm, Kidmore, near Reading.
Brereton, H., Worthenbury, Wrexham.
Brickell, A. G., Lower Farm, Westcombe, Evercreech, Somerset.
Briggs, Capt. William, Littlecote, Petworth, Sussex.
Brindley, Frank, Cottage Farm, Sandybrook, Ashbourne, Derbyshire.
Brinkler, Osborne & Young, Ltd. (represented by R. E. Goodfellow), Coldharbour Lane, Brixton, S.W. 9.
Brise, A. W. Ruggles, Spains Hall, Braintree, Essex.
British Drug Houses, Ltd. (represented by P. J. Thompson), Graham Street, London, N. 1.
British Metal Crates, Ltd. (represented by H. B. Shepherd), Talbot Mill, Ellesmere Street, Manchester.
British Oil & Cake Mills, Ltd. (represented by J. C. Lynn, M.Sc.), Cleveland Street, Hull.
British Sulphate of Ammonia Federation, Ltd. (represented by Sir David Milne-Watson, LL.D., D.L.), 28-30, Grosvenor Gardens, S.W. 1.
Brittain, Arthur, Townsend Farm, Steppingley, Bedford.
Brittain, Miss M., Seale-Hayne Agricultural College, Newton Abbot, Devon.
Brittlebank, Col. J. W., C.M.G., M.R.C.V.S., D.V.S.M., Allied Dairies, Ltd. 32/52, Gartside Street, Deansgate, Manchester.
Britton-Harvey, A. W., 66, St. Lawrence Avenue, Worthing.
Brocklehurst, W. S., J.P., Grove House, Bedford.
Brockliss, W., Church House, Church Street, Yeovil.
Brook, Lt.-Col. Charles, Kinmount, Annan (L.M.).
Brooks, C. A., The Lecture House, Dedham, Colchester.
Brooks, C. H., Park Lodge, Mistley, Essex.
Broom, T. W., Sondes Place Farm, Dorking, Surrey.
Broome, A., & Sons (represented by W. A. Broome), Preston Brook, Cheshire.
Broughton J. F., Yeabridge, South Petherton, Somerset.
Brown, Alexander, Station Farm, Southleigh, Witney, Oxon.
Brown, A. O., Cowley Farm, Ashton, Exeter.
Brown, Admiral F. C., C.B., C.M.G., Stamford Place, Faringdon, Berks.
Brown, Brig.-Gen. H. Clifton, M.P., Holmbush, Faygate, Sussex.
Brown, J. A. & W., Cormiston Towers, Biggar, Lanarkshire.
Brown, James A., 31, Bridge Street, Bristol.
Brown, J. Haldane, 33, Sylvan Grove, Peckham, S.E. 15.
Brown, J. H., Home Farm, Woodseaves, Stafford.
Brown, John H., Shrewbridge House, Nantwich, Cheshire.
Brown, Oscar C., The Chalet, Winterton, Scunthorpe, Lincs.
Brown, Robert B., 77, Portland Street, Kilmarnock.
Brown, T., The Grove, Kent's Green, Haslington, Crewe.
Brown, W., Polar Works, Manchester Road, Wilmslow, near Manchester.
Brown, Wm. C., Alpha, Stonehouse Estate, Halstead, Sevenoaks.
Brunt, S. R., Sudlow Farm, Knutsford, Cheshire.

Brunton, W., Tollesby Farm, Marton-in-Cleveland.
Bryan & Paton, Ltd. (represented by F. D. Webster), 28/30, Paternoster Row, E.C.1.
Bryan, Robert (W. Cary & Sons), Shepton Mallet, Som.
Bryant, W. G., Street Farm, Bovingdon, Boxmoor.
Buchanan-Jardine, Sir John, Bart., Castle Milk, Lockerbie, N.B. (L.M.).
Buckland, Sidney C., Windsor.
Buckler, F., 42, Sheepcote Lane, Garston, Watford.
Bucknell, T. B., Beenhams Farm, Waltham St. Lawrence, Berks.
Bucknell, J., & Sons (represented by Mrs. Jane Bucknell), Priory Farm, Beech Hill, Reading (L.M.).
Budd, Lady, Burley Hill, Ringwood, Hants.
Buist, H. M., 9 and 10, Gardnor Mansions, Church Row, N.W. 3 (L.M.).
Bull, A. C., County Dairy School, Sutton Veny, Warminster.
Bull, Mrs. Ida M., The Offices, Sutton Veny, Warminster.
Bullivant, Percy, Tunworth, Basingstoke.
Burbidge, J. D., Timberscombe, Solihull, Warwickshire (L.M.).
Burbidge, Sir Woodman, Bart., Cisswood, Lower Beeding, Horsham.
Burdett-Coutts, S., Earls Place, Mark Cross, near Tunbridge Wells.
Burdon, Col. Rowland, J.P., Castle Eden, Co. Durham.
Burfitt, L. A., Hurley Farm, Hurley, Maidenhead, Berks.
Burge, Joseph R., Itchen Down, Itchen Abbas, near Winchester.
Burgess, Frank, Corra Common, Calverhall, Whitchurch, Shropshire.
Burrell, Lt.-Col. Sir Merrik R., Bart., C.B.E., Knepp Castle, Horsham.
Burrell, Capt. W. R., Knepp Castle Estate Office, Horsham.
Bush, B. S., Crockham Hill Farm, Edenbridge, Kent (L.M.).
Bush, John H., Peart Farm, Norton St. Philip, Bath.
Butchart, Miss N. C., Department of Agriculture, The University, Leeds.
Butcher, N., 21, Sheen Lane, Mortlake, London, S.W. 14.
Butcher, W., Ecclesden Manor, Angmering, Sussex.
Butler, S. E., Horn's Farm, Eversley, Hants.
Butt, Capt. P. Lovell, D.S.O., Summerlands, Cranleigh, Surrey.
Butter, Col. C. A. J., Cluniemore, Pitlochry, Perthshire.
Button, Mrs. A. M., Park Farm Quarry, Maplehurst, near Horsham, Sussex.
Buxton, Capt. R. G., Petygards, Sporle, King's Lynn.
Buxton, Major G. J., Tockenham Manor, Wootton Bassett, Wilts.
Buxton, Sir T. Fowell, Bart., J.P., Woodredon, Waltham Abbey (L.M.).
Buzzard, Brig.-Gen. F. A., West Haxted Farm, Edenbridge, Kent.
Bysshe, W. M., 35, Carlisle Mansions, Carlisle Place, London, S.W. 1.

CADDEY, G. J., Manor Farm, Egham, Surrey.
Caddey, Mrs. G. J., Manor Farm, Egham, Surrey.
Caillard, Miss G. L., Devon Banks, West Hill, Ottery St. Mary, Devon.
Cain, Sir Ernest, Bart., Wargrave Manor, Wargrave, Berks.
Caldecott, E. Binns, Field House Dairy Farm, Houghton-le-Spring, Co. Durham.
Caldwell, Miss I., Heatherdown, Totland Bay, I. of W.
Caldwell, James, Moorfield, Kilmarnock.
Calley, Miss J. M., Burderop Park, Swindon.
Calthrop Bros., Ltd. (represented by G. A. Squirrell), Naylor Street, Liverpool.
Calvert, Mrs. C. M. L., Banwell Castle, Banwell, Som.
Calvert, Mrs. M., Bourne Place, Hildenborough, Kent.
Campbell, R. G., Great Hollanden, Under River, near Sevenoaks, Kent.
Cannell & Sons (represented by F. J. Cannell), Hardley, near Loddon, Norfolk.
Cannon, R. N., Riverdale Mills, Engate Street, London, S.E. 13.
Capstick, E. (Messrs. Aplin & Barrett), Staplemead Dairy, Frome, Som.
Carrington, H. B., Blacklands, Crowhurst, Sussex.
Carter, A. E., Brook House, Great Baddow, Essex.
Carter, F. J., Gardener's Farm, Baddow Road, Chelmsford.

Carter, J. H., 3, Norfolk Road, Horsham, Sussex.
Carter's Tested Seeds, Ltd. (represented by G. Beale), 129, High Holborn, London, W.C. 1.
Carver, P. W., Courtlands, Sharpthorne, East Grinstead.
Cash, T. E., Brockhill Farm, Redditch, Worcs.
Castle, J. E., Curbridge Farm, Curbridge, Witney, Oxon.
Cataline Co., Ltd. (represented by J. H. Fursdon), Bristol.
Caunt, James, 35, High Street, Lewes.
Cavers, A. S., Yorkshire Agricultural Society, St. Leonard's, York.
Cearn, Miss Beryl, Gatwick Farm, Upper Gatton, Reigate.
Cearn, C. H., Gatwick Farm, Upper Gatton, Reigate.
Cecil, Lady Arthur, Spreacombe Manor, Braunton, N. Devon.
Chadburn, C. W., Papplewick Hall, Nottinghamshire.
Chadwick, W. H., Winterdale Manor, Althorne, Essex.
Chalker, J. W. S., Hinton Farm, Hurst, Twyford, Berks.
Champion, R. W., 86, Brondesbury Road, London, N.W. 6.
Chaplin, Col. J.
Chapman, Frederick, Moorpark Farm, Harrogate.
Chapman, Miss F., Rock House, Lofthouse Gate, near Wakefield.
Charlton, J. U., San Remo, Stroud Road, Gloucester.
Cheke, Miss V. E., The Cockpit, Fairoak, Hants.
Cherry-Burrell, Ltd. (represented by F. Rodgers), Power Road, Chiswick, London, W. 4.
Chesham, Lady, Latimer, Chesham, Bucks.
Chick, W. D., Compton Valence, Frampton, Dorchester, Dorset.
Chillingworth, C. A., Barton Farm, Siddington, Cirencester, Glos.
Chisholm, Mrs. H., Chequers Home Farm, Princes Risborough, Bucks.
Chivers & Sons, Ltd. (represented by John Stanley Chivers), Histon, Cambs.
Church, George T., Curfew Poultry Farm, Chertsey, Surrey.
Clapham, G., Bowbrook, Shrewsbury.
Clare, A. J., J.P., Market Place, Wells, Somerset.
Clark, David, Isles, Dalbeattie, N.B.
Clark, John, Dunrod Farm, Inverkip, Renfrewshire.
Clark, Thomas, Beeches Farm, Botcherby, Carlisle.
Clarke, E. W., Chilborough House, Aylesbury, Bucks.
Clarke, R. W., 14, Richmond Hill, Richmond, Surrey.
Clarke, Lt.-Gen. Sir Travers E., G.B.E., K.C.B., K.C.M.G., 22, Sloane Gardens, London, S.W. 1.
Clarke, Col. Stephenson R., C.B., J.P., Borde Hill, Cuckfield, Sussex.
Clarkson, W., & Sons (represented by C. C. Ancell), Manor Farm, Gt. Woolstone, Bucks.
Classey, L., 30, Woodborough Road, Putney, London, S.W. 15.
Clay, Col. H. H. Spender, C.M.G., Ford Manor, Lingfield, Surrey.
Clayton, G. S., St. Anne's Works, St. Anne Street, Limehouse, E. 14.
Clement, Sir Thomas, 27, South Albion Street, Glasgow.
Clement Estates Co. (represented by T. G. Clement), Howwell, Kirkcudbright.
Clifton-Brown, E., J.P., Burnham Grove, Burnham, Bucks, (L.M.).
Cloke, G. E., Kingsbury Manor, Kenton Road, London, N.W. 9.
Cochrane, A., Nether Craig, Kilmarnock (L.M.).
Cochrane, John, Byreholm, Thornhill, Dumfriesshire (L.M.).
Cochrane, M., Catlins, Lockerbie, Dumfriesshire.
Cock, F. H., Prestbury Park, Cheltenham.
Cockx & Sons (represented by A. Cockx), Northwold Buildings, Northwold Road, Stoke Newington, London, N. 16.
Codd, J. F., Hooklands Estate, Scaynes Hill, Haywards Heath.
Coghurst Estates, Ltd. (represented by F. W. Weston), Coghurst Hall, Hastings.
Cohen, Miss C. E., Alma Cottage, Didmarton, Badminton, Glos.
Cohen, Lt.-Col. C. Waley, C.M.G., Nyton, Aldingbourne, near Chichester.

Cole, Mrs. B., Kingsfield Poultry Farm, Chalfont St. Giles, Bucks.
Cole, G. H., Gt. Slaucombe, Moretonhampstead.
Cole, W. E., 28, Norfolk Lane, Sheffield.
Colebrook, W. M.
Coleman, Miss E. L., Agricultural Department, Bradninch Hall, Castle Street, Exeter.
Collet, Sir Mark E., Bart., St. Clere, Kemsing, Sevenoaks.
Collett, Miss Phillis C., The Cove, Torcross, Kingsbridge, S. Devon.
Collins, C., 18, Victoria Place, Stranraer.
Collins, Rev. R. L., St. Luke's College, Exeter.
Collins, W. H., Whitehouse Farm, Bruton, Somerset.
Colnett, Miss A., County Education Office, Shire Hall, Gloucester.
Colombe, A., Newlands Egg Farm, Kidmore End, near Reading.
Colston Bassett & District Dairy, Ltd. (represented by A. W. Tinsley), Colston Bassett, near Nottingham.
Colt, W. H., Ltd., Bush House, Aldwych, London, W.C. 2.
Combes, Daniel, Dinton Manor, Salisbury.
Compton, A. H., 136, Kensington Park Road, London, W. 11 (L.M.).
Comyns-Lewer, Mrs. E., Longcroft, Aldeburgh, Suffolk.
Constable, Miss G. G. L., Sotherton Hall, Wangford, Beccles, Suffolk.
Cook, The Hon. Lady Mary, Porthallow, Looe, Cornwall.
Cookson, E. A., Minshull Hall, Middlewich.
Cooper, Cecil M., Deerswood, Ifield, Sussex.
Cooper, Major R. W., Tackley Park, Oxfordshire.
Cooper, Sir George A., Bart., Hursley Park, Winchester. (Agent : T. W. Ashton, Estate Office, Hursley Park, Winchester, Hants.).
Co-operative Wholesale Society, Ltd. (represented by W. T. Parker). All communications to A. Partington, Expenses Department, 1, Balloon Street, Manchester.
Co-operative Wholesale Society, Ltd. (represented by R. F. Lancaster). All communications to A. Partington, Expenses Department, 1, Balloon Street, Manchester.
Coote, Col. Charles H. Eyre, Highgate House, Creaton, Northampton.
Cope & Cope, Ltd. (represented by E. G. Whelow), 100, King's Road, Reading (L.M.).
Copley, S. W., Deacons Hill, Elstree, Hertfordshire.
Corbett, Mrs. L., Hockley House, Alresford, Hants.
Corfield, Capt. R., Factory Estate, Morden Road, Merton, S.W. 19. (L.M.).
Cornall, Fred, The Hermitage, Holmes Chapel, Cheshire.
Cornish, Mrs. C. J., Pound Piece, Astley, Stourport-on-Severn.
Corrie, Harold, Heath House Farm, Lowfield Heath, Surrey.
Coryton, Capt. J. T., Pentillie Castle, St. Mellion, Cornwall.
Court, Miss M. F., Marisden, London Road, Deal.
Courtauld, Mrs. C. C., Froyz Hall, Halstead, Essex.
Courthope, Col. Sir G. L., Bart., M.P., Whiligh, Sussex.
Cow & Gate, Ltd. (represented by The Secretary), Guildford.
Coward, Miss F., Park House Farm, Barrow-in-Furness.
Cowlard, Mrs. P., Stuart Lodge, Appleshaw, Andover.
Cowley, A. G., Norwood Hill, Horley, Surrey.
Cowley, William A., Ovingdean Grange, near Brighton, Sussex.
Cowpe, J., Fir Trees Farm, Goosnargh, near Preston.
Cox, E. S., 31, Alexandra Road, Reading.
Cox, Harry T., Bishops Stortford Dairy Farms, Bishops Stortford, Herts.
Cox, Miss E. Lillian, Chewton Field Farm, Chewton Mendip, Bath, Somerset.
Cox, R. J., 113, Peters Court, Bayswater, London, W.2.
Crabtree, James (L.M.).

Cragg, Miss K., Monmouthshire Agricultural Institute, Usk, Mon.
Craig, John, Goat Farm, Ringmer, Lewes, Sussex.
Craig, W. E., Green Farm, Burghfield, Reading.
Cranfield, H. T., Midland Agricultural College, Sutton Bonington, Loughborough.
Cranworth, Lord, Grundisburgh Hall, Suffolk.
Crawford, Lady Gertrude, Coxhill, Lymington, Hants. (L.M.).
Crawford, H. E., The Home Farm, Nonington, Dover.
Crawford, J. B., Hall, Auchencairn, by Castle Douglas.
Crawford, Walter C., Chapmanton, Castle Douglas.
Cray, A. S., The Laurels, Johnstown, Carmarthen.
Creamery Package Manufacturing Co., Ltd. (represented by D. C. North), Avery House, Clerkenwell Green, E.C. 1.
Creed, A. J., Goldicote House, Stratford-on-Avon.
Crewe, Marquis of, P.C., D.C.L., Crewe House, Curzon Street, W. (communications to Prof. W. McCracken, Englesea House, Crewe).
Crittall, Miss Winifred M., Bartrum Gables, Broadstairs.
Crombie, T. A., Estate Office, Bawdsey, Woodbridge, Suffolk.
Cronk, J. W. G., Lyndhurst, 17, Aldrington Road, London, S.W. 16.
Cross, Donald, Knockdon, Maybole, Ayrshire.
Cross, J. L., Catthorpe, Rugby.
Crosthwaite, Miss F. G., Springcroft, Spital, Bromborough, Cheshire.
Crowe, John, The Manor, Ashe, Overton, Hants.
Crutcher, G. J., The Woodlands Farm, Newdigate, Surrey.
Cumber, W. J., Theale, Berkshire.
Cundy, J. P., Estover, Crownhill, near Plymouth.
Cupiss, F., Ltd., The Wilderness, Diss, Norfolk.
Curtis, Mrs. C. J., 46, Merton Hall Road, Wimbledon, London, S.W. 19.
Curtis, W., Berwick Manor Farm, Rainham, Essex.

Dairy, The (represented by P. E. Miller), 83-85, Farringdon Street, E.C. 4.
Dairy Industries (represented by Dr. H. B. Cronshaw), 102/105, Shoe Lane, E.C. 4.
Dairy Outfit Co., Ltd. (represented by W. P. Freeth), 251, Pentonville Road, King's Cross, London, N.1.
Dairy Requisites, Ltd. (represented by Capt. B. P. Hornby), 27-31, Caledonian Road, London, N. 1
Dairy Supply Co., Ltd. (represented by Capt. C. C. F. Smith, M.C.), Museum Street, London, W.C. 1.
Dale, J., & B. M., Felhampton Court, Church Stretton, Salop.
Dalrymple-Hamilton, Col. N., Bargany, Girvan, Ayrshire (L.M.).
Dalton, H. A., Bridge Farm, Chawston, Bedford.
Danks, G. E., Carfax, Rotherfield Road, Carshalton, Surrey.
Daresbury, Lord, C.V.O., Walton Hall, Warrington. (Agent: Capt. J. Bainbridge, Walton Estate Office, near Warrington).
Darlington, T., Marshfield Bank Farm, Woolstanwood, Crewe.
Darnhall Dairy (represented by T. Beech), Darnhall, Winsford.
Dartmouth, Earl of, G.C.V.O., 5, Belgrave Place, London, S.W. 1.
Dashwood, E. Hayes, Aston Rowant House, Oxfordshire.
Davidson, H. R., Common Lane, Batford, Harpenden.
Davidson, J. D., Glamorgan Agricultural Committee, County Hall, Cardiff.
Davies, Ben, United Daries, Ltd., 34, Palace Court, W.2.
Davies, Mrs. D. M., Eithynog, Buarth, Aberystwyth.
Davies, H. E., 877, High Road, Tottenham, N. 17.
Davies, J. E., 10 & 11, Dukes Road, Tavistock Square, London, W.C. 1.
Davies, Miss M., Creylos, Heraithog, Ruthin.
Davies, Dr. W. L., National Institute for Research in Dairying, Shinfield, near Reading.

Davis, Colonel W. N., O.B.E., J.P., Brookside, Salt Hill, Slough, Bucks.
Davis, H. E., New Zealand Dairy Produce Board, St. Olaf House, Tooley Street, London, S.E. 1.
Davy, A. Cedric, Paternoster Row, Sheffield, Yorks.
Daws, Mrs. L., Heath Farm, Weeley Heath, Clacton-on-Sea.
Dawson, George (Dawson Bros.), Leeds, Yorks.
Dawson, Miss E. M., 1, College Hill, Shrewsbury.
Dawson, Mrs. J. E. Finch, Burwain Hall, King's Meaburn, Penrith.
Day, John, Stone House, East Pennard, Shepton Mallet, Som.
Day, Major E. C., Merrington Place, Rolvenden, Kent.
Day & Day (represented by C. T. Day), 1, Rossington Street, E. 5.
Day & Sons (Crewe), Ltd. (represented by G. Berry), Crewe.
Day, Son, & Hewitt, 22, Dorset Street, London, W.1.
Dean, F. W., St. Germain's Farm, St. Albans, Herts.
Dearden, Miss D. V., National Institute for Research in Dairying, Shinfield, near Reading.
Dearnaley, J., London House, Glossop.
Debenham, Miss Alice (representing Messrs. E. R. & A. Debenham), Bladen Dairy Farms, Briants Puddle, Dorchester.
De la Warr, Earl, Fishers Gate, Withyham, Sussex.
Delme-Radcliffe, Lt.-Col. A., D.S.O., (L.M.).
Denchfield, F. T., Manor House, Tingwick, Buckingham.
d'Engelbronner, L. A. d'A., Redleaf, Penshurst, Kent.
Denman, Lady, C.B.E., Balcombe Place, Balcombe, Sussex (L.M.).
Denman, T. H., Netley Court, Netley Abbey, Southampton.
Dennis, Mrs. Cyril, Oakley Hall, Market Drayton, Salop.
Dennis, J. T., Winsor, Yealmpton, Devon.
de Pret Roose, Comtesse E., Ellens, Rudgwick, Sussex.
Derisley & Son (represented by L. R. Derisley), Devonshire House, Byfleet.
Desborough, Lord, K.G., G.C.V.O., Taplow Court, Taplow, Bucks.
de Trafford, Sir H. E., Bart., Newsells Park, Barley, Royston.
de Wackenfelt, M., Swedish Legation, 27, Portland Place, W.1 (H.L.M.).
Dewar, J. A., Homestall Poultry Farm, East Grinstead.
Dewe, W., Milk Marketing Board, 110, Friar Street, Reading.
Dickinson, B. O., Pharos, Burnham-on-Sea, Somerset.
Dickson & Robinson (represented by W. P. Robinson), Cathedral Street, Manchester.
Digby, Lord, D.S.O., M.C., Minterne, Dorchester (L.M.).
Dingle, Miss A. M., Hazelby Dairy, Newbury, Berks.
Dobson, Miss M. G., Studley College, Studley, Warwickshire.
Dobson, P., Manor Farm, Ridgwardine, Market Drayton.
Dommett, W. E., Levaton, Denbury, Newton Abbot, Devon.
Done, John, Manor House, Malpas, Cheshire.
Downs, J. E., Broad Street, Bilston, Staffs.
Drakeley, Dr. T. J., D.Sc., Ph.D., F.I.C., F.C.S., F.I.R.I., 69, Rosebery Road, Muswell Hill, London, N. 10.
Drakes, G., Midfield Farm, Humberston, Grimsby.
Drew, Mrs. J. H., Buff Rock Poultry Farm, Basingstoke, Hants.
Drew, O. W., Romney, Woodley, Reading.
Dronsfield, Capt. W. B., Wilmcote Hill, Stratford-on-Avon.
Dryden, Mrs. S. M., Cooper House Poultry Farm, Kibblesworth, near Gateshead.
Ducie, Earl of, Tortworth Court, Falfield, Glos.
Ducker, N. B., 32, Dover Street, London, W.1.
Dulverton, Lord, Batsford Park, Moreton-in-Marsh, Glos. (L.M.).
Duncan, Miss G., Tillycorthie House, Udney Station, Aberdeenshire.
Duncan, P. & W., Muncraig, Borgue, Kirkcudbright.
Dunlop, Robert, Chapelhill, Castle Douglas.
Dunlop, Quintin, Greenan, Ayr.

Dunn, Henry, 39, Alverstone Avenue, East Barnet, Herts. (L.M.).
Dutton, B. T., Brindley Hall, Nantwich, (L.M.).
Dutton, S. L., Woodside, Wettenhall, Winsford, Cheshire (L.M.).
Dyer, W. T., Grauntcourts, Rayne, Essex.
Dyson, H. A. Y., Dalton, Bolney, Sussex.

East Kilbride Dairy Farmers', Ltd. (represented by A. Gilmour), 23, Silvergrove Street, Glasgow, S.E.
Easton, Edward G., 43, Gt. Tower Street, London, E.C. 3.
Edge, T. W., Holmeston Hall, Tarporley, Cheshire.
Edney, L. E., 6a, St. Martin's, Leicester.
Edwards, A. R., Tynewydd, Castleton, Cardiff (L.M.).
Edwards, Henry, Hofland Road, West Kensington, London, W. 14.
Edwards, J., School of Agriculture, The University, Cambridge.
Edwards, Miss Katie, The Mardy, Pencoed, near Bridgend.
Edwards, Sidney, Tynewydd, Castleton, Cardiff.
Egerton, J. R., Malpas Cottage, Rushmere, Ipswich.
Egg Packing Materials, Ltd. (represented by C. N. Barton), Horton Road, West Drayton.
Elce, Mrs. Amy, Barings Field, Newdigate, Surrey.
Ellinger, Prof., Landbohojskole, Copenhagen (H.M.).
Elliot, H. G., Brook House Farm, Ardingly, Sussex.
Ellis, Robert, Standard Works, Annan, Scotland (L.M.).
Elmhirst, L. K., Dartington Hall, Totnes, Devon (L.M.).
Elmhurst Farming and Trading Co., Ltd. (represented by H. St. George Voules), Elmhurst Farm, Slinfold, Sussex (L.M.).
Eltisley, Lord, Croxton Park, Cambridgeshire.
Elwes, Lt.-Col. W., Oakdale, Ockley, Surrey.
Emberlin & Co., Ltd. (represented by J. Wilford), Market Place, Leicester.
Emmet, Hon. Mrs. T. A., Amberley Castle, Amberley, Sussex.
Empson, C. C., Valley Farm, Sproughton, Ipswich.
England, W. J., Somerset Farm Institute, Cannington, near Bridgwater.
Enock, Arthur Guy, Dutch House, Raglan Gardens, Wembley Park.
Enock, G., Margaret Street Works, Windus Road, N. 16 (L.M.).
Ernst, Christian C., High Birch Poultry Farm, Weeley Heath, Clacton, Essex.
Errington, Roger, Victoria Mills, Sunderland.
Evans, Miss D. M., County Offices, Dorchester.
Evans, Capt. J. F., Sugley Farm, Nailsworth, Glos.
Evans, E. A., United Dairies, Ltd., 34, Palace Court, W. 2.
Evans, J. M., 2a, Oxford Road, Ealing, W. 5.
Evans, Richard H., Barclays Bank Chambers, Pwllheli, Carnarvonshire.
Evans, Mrs. R. H., 32, Cardiff Road, Pwllheli, Carnarvonshire.
Evans, Miss R. M., Agricultural Offices, Lampeter, Cardiganshire.
Evens, John, J.P., Burton, Lincoln.
Evens, John, junr., Burton, Lincoln (L.M.).
Evens, Thomas, Ramsland, Yealmpton, Devon.
Everard, W. Lindsey, Ratcliffe Hall, Leicestershire (L.M.).
Eves, H. J., Allington, Bridport, Dorset.
Ewing, W., Gate Street Farm, Bramley, Surrey.
Exeter Co-operative & Industrial Society, Ltd. (represented by F. Hannaford), 6 & 7, Eastgate, Exeter.
Express Dairy Company, Limited (represented by R. H. Hewson), Tavistock Place, London, W.C. 1.

Fair, R. B., Homedale, Clarence Road, Wallington, Surrey.
Fairbairn, E. F., Wreay Syke, Wreay, Cumberland.
Fairhead, T. G., Little Chesterford, Saffron Walden, Essex.
Fairweather, E. D., Shinfield Lodge Farm, Shinfield, Reading.

Fane, J. Onslow, Steventon Manor, near Basingstoke (L.M.).
Farmer, Mrs. E. J., Devonia, Cippenham, Slough, Bucks.
Farmer, John T. H., Devonia, Cippenham, Slough, Bucks.
Farmers' Clean Milk Dairies, Ltd. (represented by T. W. Steer), 16/18, Greyfriars Road, Reading.
Farmers Weekly, The (represented by M. Messer), 43, Shoe Lane, London, E.C. 4.
Farrer, Miss B., Pelham House, Bardwell, Bury St. Edmunds.
Faringdon, Lord, Buscot Park, Faringdon, Berks. (communications to W. Crosland, Estate Office, Buscot Park, Faringdon, Berks.).
Fawcett, J., Manor Farm, New Milton, Hants.
Fawkes, F. H.,
Fazan, Miss F. A., 1, Amherst Road, Bexhill-on-Sea.
Fearis, L. H., Barnwood Lodge, Hucclecote, Gloucester.
Fearnall, P., Calverhall, Whitchurch, Salop (L.M.).
Ferguson, W. L., Cairnweil, Sandhead, Stranraer.
Fifer, A., Buckingham Avenue, Trading Estate, Slough, Bucks.
Fifield, W. A., Pikes Farm, Bill Hill, Wokingham, Berks.
Fisher, Charles U., Crescent Farm, Sidcup, Kent.
FitzGerald, Lady, Buckland, Faringdon, Berks.
Follett, Lt.-Col. H. S., C.B.E., Rockbeare Manor, near Exeter.
Foot, Asher, The Laurels, Stourpaine, Blandford, Dorset.
Foot, A. S., National Institute for Research in Dairying, Shinfield, Reading.
Foot, Mrs. R. M., White Hill, Berkhamsted (L.M.).
Forshaw, James & Sons, Stud Farm, Carlton-on-Trent, Newark.
Fortescue, Earl, Castle Hill, South Molton, North Devon (L.M.).
Fortescue, George G., Boconnoc, Lostwithiel, Cornwall.
Forteviot, Lady, Galloway House, Garliestown, Wigtownshire.
Foster, T., Newfield Grange, Bell Busk, Skipton, Yorks.
Four Oaks Spraying Machine Co. (represented by W. C. G. Ludford), Four Oaks, Sutton Coldfield, Birmingham, Warwickshire.
Fowler, A. B., Kirkhill Farm, Ayr.
Fowler, W. Herbert, J.P. (L.M.).
Foxton, J., Benningholme Hall, Skirlaugh, near Hull.
Fox-Brockbank, A. H., The Croft, Kirksanton, Millom, Cumberland.
Francis, E. J., Manor Farm, Stour Provost, Gillingham, Dorset.
Francis, F. S., Thakeham Lodge, Thakeham, Pulborough, Sussex.
Franklin, A., Chartridge Lodge, Chesham, Bucks.
Franklin, H., Coltsfoot Farm, Datchworth, Herts.
Frecheville, G., Windmill Hill Farm, Steeple Clayton, Bucks.
Freeland, R. A., Beacon House, Yew Tree Road, Southborough, Tunbridge Wells.
Freemantle, C. R., 9-10, Bond Court, Walbrook, London, E.C. 4.
Freeth, H. C., 65, Westbourne Court, London W.2.
Freshney, S. D., Bonby, Brigg, Lincs.
Fricker, P., Blackness Farm, Crowborough, Sussex.
Frieland, H. N., 67, Scrutton Street, London, E.C. 2.
Fuller, Major Robert F., J.P., Great Chalfield, Melksham, Wilts. (L.M.).
Fullwood & Bland (represented by C. Bland), 31, Bevenden Street, Hoxton, N. 1.
Furze, J. R., Stanford Rivers, Ongar, Essex.

Gabriel, Wade & English, Ltd. (represented by G. H. B. English), Wisbech.
Galbraith, D., 37, Pennine Drive, Cricklewood, London, N.W. 2.
Gamble, A. J., 14, East Bridge Street, Belfast.
Garner, Frank H., University Farm, Huntington Road, Cambridge.
Garnett, G., The Park, Eccleshall, Bradford.
Garrad, G. H., Springfield, Maidstone,
Garrard, F. R., The Hall, Framlingham, Suffolk (L.M.).

Gartons, Ltd (represented by Thomas E. Miln), Warrington.
Gascoignes (Reading) Ltd. (represented by G. H. Gascoigne), Gascoigne House, Gt. Knollys Street, Reading.
Gear, A. F., The Creamery Package Manufacturing Co., Avery House, Clerkenwell Green, London, E.C. 1.
Gee, George, Ely Grange, Frant, Sussex.
General Electric Co., Ltd. (represented by F. E. Rowland), Magnet House, Kingsway, London, W.C. 2.
Gerrard, Miss A., Huddington, Droitwich.
Gibson, J. & H., Priestlands, Dumfries.
Gibson, Mrs. M., Knapp Farm, Whitestaunton, near Chard, Som.
Gilbert, F. W., The Manor, Chellaston, Derby.
Gilbert, F. W. H., junr., The Manor, Chellaston, Derby.
Gilbert, W. H. R., The Cottage, Aston Flamville, Hinckley.
Gillard, R. H., South Cadleigh, Ivybridge, Devon.
Gillate, E. Uwins, Shawlands, Lingfield, Surrey.
Gilmour, A., West Crosshill, East Kilbride, Lanarkshire.
Gisborne, Col. L., C.M.G., Lingen Hall, Brampton Bryan, Herefordshire (L.M.).
Gittins, William H., The Hall Farm, Ruyton Eleven Towns, Shropshire.
Glazebrook, R., The Lydiate, Willaston, Cheshire.
Glazebrook, W. R., Manley Hall, Overton Bridge, Wrexham.
Glentanar, Lord, Estate Office, Glen Tanar, Aboyne, Scotland (L.M.).
Glossop, C. W. H., J.P., The Lund Dairies, Bramwith, near Doncaster.
Gloucester Incubators, Ltd. (represented by G. W. Wrentmore), Woodchester Works, Stroud, Glos.
Glover, Wilfred, The Retreat, Willoughby, Waterleys, near Leicester.
Godfrey, Mrs. L., Manor House, Woodchester, Glos.
Godfrey, John, & Co., Ltd. (represented by C. B. Carter), Railway Gates, Stamford.
Godwin, J. F., Manor Farm, North Aston, Oxford.
Golding, Capt. John, D.S.O., Lyndhurst Grange, Shinfield, near Reading.
Golding, W. J., Bowens, Penshurst, Kent.
Goldsmith & Silversmiths Co., Ltd. (represented by J. W. Rice), 112, Regent Street, London, W. 1.
Goode, C. N., The Croft, Bedford Road, Rushden, Northants.
Goodwin, J. D., Ash House, Brindley, Nantwich.
Goodwin, P., Bubney, Whitchurch, Salop.
Goodwin, Thomas C., Leighton Grange, Crewe.
Goodwin-Courtman, E. G., Universal Farm Requisite Stores, Newnham, Glos.
Gordon, A. W., Letton Hall Home Farm, Shipdham, Norfolk.
Gordon, Miss M. E., Cropwell Bishop, Notts.
Goschen, Sir Harry, Bart., Durrington House, Harlow, Essex.
Gosney, G. F., Room 234, Shell Mex House, Victoria Embankment, W.C. 2.
Grabham, A., 139, Englefield Road, Essex Road, London, N. 1.
Grace, E. G., 6, Bridge Street, Bristol.
Graham, Lord Alastair M., Chantry Farm, Campsea Ashe, Woodbridge, Suffolk.
Graham Bros., Whytings Farm, Horsham, Sussex.
Grant, A. P. F., M.B.E., Kirby Hall, Horton Kirby, Kent.
Grant, Mrs. M. A., Kirby Hall, Horton Kirby, Kent.
Grant, Mrs. M. F. C., Ham Lodge, Wickham Road, Croydon.
Grant, S. M., General Poultry Industries, Ltd., 21, Hyde Street, Winchester.
Gray, J. G., Coombe Abbey, Coventry.
Gray, Mrs., Dibden, Purley, Southampton.
Green, A. W., Stoke Abbey Farm, Stoke Bishop, Bristol.
Green, E. H., Court Green Farm, Cloughton, Scarborough.
Green, H., Dudwell Farm, Chewton Mendip, Bath.

Green, J. J., County Offices, Preston, Lancs.
Green, W. S., The Firs, Hedge End, Southampton.
Greenhow & Hartley, Galaberry Poultry Farm, Annan, Dumfriesshire.
Greenway, Lord, Stangrove Park, Edenbridge, Kent.
Greenwood, Lt.-Col. Charles S., M.B.E., J.P., Swarcliffe, Birstwith, Harrogate.
Gregory, W., & Co., Ltd. (represented by W. Gregory), Wellington, Somerset.
Griffin, E., 84, High Street, Slough.
Griffith, M., B.Sc., Pwllpeiran, Devil's Bridge, S.O., Cardiganshire.
Griffith, Mrs. M. L., Little Hallingbury Park, Essex.
Griffiths, Miss M. F., Blacklands Hall, Cavendish, Suffolk.
Grimsby Fish Meal Co., Ltd. (represented by The Secretary), Pyewipe, Grimsby.
Groves, Miss M., 55, Victory Road, Little Lever, Bolton, Lancs.
Guilford, Earl of, Estate Office, Waldershare Park, Dover.
Guinness, Hon. A. E., Holmbury House, Holmbury St. Mary, Dorking.
Gulliver, J. E., Westbury Farm, Purley, near Reading.
Gunn, H., Enville, Pirton Lane, Churchdown, Glos.

Hacking, Thomas, M.Sc., 6a. St. Martins, Leicester.
Hall, Edmond, Torrisholme Hall, Morecambe (L.M.).
Hall, E. B., Hales Hall, Market Drayton, Salop.
Hall, Miss E. M. G., Chestnut Tree House, Willersey, near Broadway, Worcs.
Hall, H. Whitworth, J.P., Bennington Park, Stevenage, Herts.
Hall, Mrs. A. M., Shipton Court, Shipton-under-Wychwood, Oxon.
Hall, W. E., Model Dairy, Lynchford Road, Farnborough, Hants.
Hallett, C. M., Walronds Park, Ile Brewers, Taunton.
Halliday, T. E., 23, Florence Road, Sanderstead, Surrey.
Hambleden, Viscount, Greenlands, Henley-on-Thames. (Agent, C. W. Brighten, Lloyds Bank Chambers, Maidenhead.
Hambling, Sir Guy, Bart., Rookery Park, Yoxford, Suffolk.
Hambro, Lt.-Col. H. E., C.B.E., Coldham Hall, Bury St. Edmunds.
Hambro, N., Coldham Hall, Bury St. Edmunds (L.M.).
Hambro, R. O., Kidbrooke Park, Forest Row, Sussex.
Hamilton, H. P., B.V.Sc., The Laboratory, Goring, Reading.
Hamilton and Brandon, The Duchess of, Ferne, Donhead, Shaftesbury.
Hammond, John, School of Agriculture, Cambridge.
Hamnett, W., Myrtle Poultry Farm, Poulton-le-Fylde, Lancs.
Hankey, Colonel Walter A. (L.M.).
Hankinson, Mrs. E. M., Field Bank, Seale-Hayne, Newton Abbot.
Hannon, Lady, The Mount Farm, Farnham Royal, Bucks.
Hansen's Laboratory, Ltd. (represented by J. C. Moller), Astor House, Aldwych, London, W.C. 2.
Hardcastle, Major H. M., Bradshaw Hall, Bolton-le-Moors, Lancs.
Hardie, G. M., 50, St. Leonard's Road, Bexhill-on-Sea.
Harding, G. P., Kimpton Holt, Hitchin, Herts.
Hardman, N., The Elms, Barton, Preston, Lancs.
Hare, E. F., Market Place, Market Deeping, Lincs. (L.M.).
Hare, G. F., Trafford Road, Wisbech, Cambs.
Harewood, Earl of K.G., D.S.O., Harewood, Leeds (all communications to P. G. Gordon, Home Farm, Harewood, Leeds).
Harford, M. W., Horton Hall, Horton, near Bristol.
Hargreaves, R., Abbeydene Poultry Farm, Whalley, Lancs.
Harlech, Lord, Brogyntyn, Oswestry.
Harries, T. Ll., Pilrhoth, Llangain, Carmarthen.
Harris, C. and T. (Calne), Ltd. (represented by R. P. Redman), Calne, Wilts.
Harris, N., Darley Dale, Libertus Road, Arle, Cheltenham, Glos.
Harris, Stanley, Aspley Guise, S. O., Bedford (L.M.).
Harrison, E. S., The Old Hall, Mattishall, Dereham, Norfolk.

Harrison, E. W., Top House, Kenwick Park, Ellesmere, Salop.
Harrison, W., Dutton Manor Home Farm, Longridge, nr. Preston.
Harrison & Sons (represented by J. Harrison), St. James Street, Leicester.
Harrison, McGregor & Co., Ltd., Albion Iron Works, Leigh, Lancs.
Harrop, I., 15, Woodville Grove, South Reddish, Stockport.
Hassonna, M. M., The University, Reading.
Hastings, Matthew, North Boig, New Cumnock, Scotland.
Hastings, Lord, Melton Constable Park, Norfolk.
Hatchwell, Miss H. M., The College, Studley, Warwickshire.
Havinden, G., 9, Queen Victoria Street, E.C. 4.
Hawes, F., Little Compton, Moreton-in-Marsh, Glos.
Hawkins, Mrs. D. K., Everdon Hall, Daventry, Northants.
Haworth, Alfred, B.A., J.P., Ravelstone, Manley, Warrington.
Hay, A., Sunnyside, Writtle, Chelmsford.
Hay, Percy T., 3, Brookfield Park, Highgate Road, London, N.W. 5.
Hay, W. D., B.Sc., Somerset Farm Institute, Bridgwater, Somerset.
Haydon, D., 63, Honor Oak Road, S.E. 23 (H.M.).
Hayes, G. Constable, The Greenway, Shurdington, Cheltenham.
Haylett, R. W., Railway Road, Downham, King's Lynn.
Hayward, Colonel J. F. Curtis, Quedgeley, Gloucester (L.M.).
Headly, L. C., Abbey Gate, Leicester.
Heald, Edgar, Sharston House, near Northenden, Manchester.
Heap, Miss I., Lilies, Aylesbury.
Hearnshaw, Mrs. R. Fletcher, Foxhill, Burton Joyce, Nottingham (L.M.).
Heaver, Exors. of the late John W. T., Ratham House, Chichester, Sussex.
Hebditch, Harry, Poultry Farmer and Appliance Maker, Martock, Som.
Hedley, J. R. P., Southcote Grange Farm, Reading.
Hegh, E., International Dairy Federation, 63, rue Joseph Bens, Uccle, Brussels, Belgium (H.M.).
Heilgers, Capt. F. F. A., Wyken Hall, Bardwell, Bury St. Edmunds.
Heller, S., 35, Lealand Road, London, N. 15.
Heller & Sons (represented by M. Heller), 35, Lealand Road, N. 15.
Hemsley, G., Boat House Farm, Isfield, Sussex.
Henderson, Hon. A. P., Windlesham Park, Windlesham, Surrey (L.M.).
Henderson, Hon. E. B. B., Winwick Manor, Rugby.
Henderson, Hon. P., Gerston, Storrington, Sussex.
Henderson, Miss Marjorie, The Riding, Hexham, Northumberland.
Hennerty, Miss M., Department of Agriculture, Government Buildings, Dublin.
Herbert, C. A., Heydown Farm, Heathfield, Sussex.
Herbert, F. F., The Graig, Penallt, Mon.
Heritage, J. A., Coolinge Farm, Folkestone.
Herts. and Beds. Bacon Factory (represented by J. B. Busby), Hitchin.
Hervey-Bathurst, Lady K., Somborne Park, King's Somborne, Hants.
Heseltine, Lieut.-Col. John E. N., Hawking Down, Hindon, Wilts.
Hesford, C. M., & Co., Ltd., Agricultural Engineers, Ormskirk.
Hewthorn & Co., Ltd. (represented by H. Kent), Cook's Road, E. 15.
Heywood, N. A., J.P., Glevering Park, Wickham Market, Woodbridge (L.M.).
Heyworth-Savage, Lt.-Col. C. F., O.B.E., Bradwell Grove, Burford, Oxford.
Hicking, Sir William N., Bart., Brackenhurst Hall, Southwell, Notts.
Hickman, J. O., Micklefield Green, Rickmansworth.
Higgins, W., Kilburn Lane Farm, Kensal Green, London, N.W.
Hignett, L., Hook End Farm, Checkendon, Oxon.
Higgs, W. J. C., Pattullo, Higgs & Co., Ltd., Orpington, Kent.
Hill, A. F., Townsend Farm, Waterperry, near Oxford.
Hill, J., Elswick Grange, Elswick, near Kirkham, Lancs.
Hill, G., & Sons (represented by E. F. Hill), Evercreech, Somerset.
Hills, A. L. F., Redleaf Estate Office, Penshurst Station, Kent.
Hilton, Miss K., Hill Head, Hopwood, Heywood, Lancs.

Hindlip, Agatha Lady, Hindlip Hall, Worcester.
Hingston, Capt. A. T., Dunsford, near Exeter.
Hinton, R., Manor Farm, Southrop, Lechlade, Glos.
Hipkins, W., 16, Bryn Drive, South Reddish, Stockport.
Hiron, H. W. M., Alka Works, Minerva Road, N.W. 10.
Hirst, R., The Royds, Cleckheaton, Yorks.
Hirst, R. S., Swincliffe House, Gomersal, near Leeds.
Hoare, G. de M. G., Tilburstow Hill Farm, South Godstone, Surrey.
Hoare, Sir H. H. A., Bart., Stourhead, Zeals, Wilts.
Hobbs, Robert, Kelmscott, Lechlade, Glos.
Hobson, C. W., Woodhey Hall, Nantwich.
Hobson, H. S., Brockton Hall, Eccleshall, Staffs.
Hobson, W. H., Noyna Mede, Nantwich.
Hobson, J. T., & Co. (represented by G. N. Martin), New Wharf, St. Mary's, Bedford.
Hodge, Mrs. Arthur B., The Redings, Totteridge, London, N. 21.
Hodge Bros., Wyddial Bury, Buntingford, Herts.
Hogg, W. H., Seale-Hayne Agricultural College, Newton Abbot.
Holborrow, J. P., Northfield Farm, Charlton Kings, Glos.
Hole, Sidney, Yew Tree House, Albourne, Hassocks, Sussex.
Holland, Miss J., Lime Tree Farm, South Collingham, Notts.
Holland, J. C., Holywell Row, near Mildenhall, Suffolk.
Hollas, Mrs. K., Parsonage Farm, Highworth, Wilts.
Hollebone, E. C., 31, Keswick Road, Putney, S.W.
Hollingsworth, T., Union Street, Wednesbury, Staffs.
Hollinshead, P., Wallange Farm, Stanthorne, Middlewich, Cheshire.
Holm, H. C., The Grange, Carlton Curlieu, Leicester.
Holmes, Carl, Clover Top Farm, Welwyn, Herts.
Holmes, John, Room 5, 47, Park Square, Leeds.
Holmes, W. F., The Thatched House, Hampton Wick, Middlesex.
Holmes, Ralph, & Son (represented by R. Holmes), West Moor Farm, Whitburn, Sunderland.
Holmes-Hunt, W., Crawley Down, Sussex.
Holt, Edmund, The Limes, Pulford, Wrexham.
Holt, Capt. H. P., Lackham House, Lacock, Wilts.
Hoole, Mrs. G., 107, Ivy Mount, Bolton Road, Chorley, Lancs.
Hopkins, G., & Sons (Clerkenwell), Ltd. (represented by A. D. Hopkins), 40-52, Holloway Road, N. 7.
Hopley, E., Knights Grange, Winsford, Cheshire.
Hopwood, A. A., Mouldsworth Hall, Chester.
Hopwood, A. G., Oscroft Hall, Tarvin, Cheshire.
Hornby, W. E., Keynsham Manor, Saltford, Som.
Hornby & Clarke (represented by H. E. Hornby), 12, The Quadrant, Richmond, Surrey.
Horne, Sir W. Edgar, Hall Place, Shackleford, Godalming, Surrey.
Horticultural College (represented by Miss K. Barratt), Swanley, Kent.
Hosier, A. J., Wexcombe House, Marlborough, Wilts.
Hoskins, S., Ashley Manor, Tetbury, Glos.
Hoskyns, H. W. W., North Perrott Manor, Crewkerne, Som.
Hough, Tom G., Elmfield, Bilton Road, Rugby.
Houldsworth, Col. W. T. R., Kirkbride, Maybole, Ayrshire.
Howard, H. G., 23, Ditton Court Road, Westcliff-on-Sea.
Howie, James, Hillhouse, Kilmarnock.
Howie, James, Eglinton Mains, Irvine, Ayrshire.
Howland, Miss E. P., The Horticulture College, Swanley, Kent.
Howson, Capt. T. A., Royal Welsh Agricultural Society, Queen Buildings, Queen Street, Wrexham.

Hoyle, J. J., Chase Cottage Farm, Potters Bar, Middlesex.
Hughes, A. O., Lindow, Rhosneigr, Anglesey.
Hughes, J. T., Lindow, Rhosneigr, Anglesey.
Hulme, E. H., Priory Farm, Tarbock, near Liverpool.
Hunt, A. H., Dropping Lane Farm, Bruton, Som.
Hunt, James, Ltd. (represented by E. A. Hunt), Atalanta Street, S.W. 6.
Hunt, Miss M. A., 184, Kensington Road, Reading.
Hunt, W., Diptford Downs, Diptford, S. Brent, S. Devon.
Hunter, J. A. & Co., Ltd. (represented by H. M. Blackburn), Broadgreen, Liverpool, 14.
Hunter, James P., Whiteleys Farm, Stranraer.
Hunter, John P., Garthland Mains, Stranraer.
Hurley, W., Junr., 48, Silwood Street, Rotherhithe, London, S.E. 16.
Hurst, Mrs. S., Park Farm, Blyth, Worksop.
Huthnance, S. L., 402, Cowley Road, Oxford.
Huxley, Dr. H., Wootton Close, Boars Hill, near Oxford.
Hyland, A. E., Room 400, Australia House, Strand, W.C. 2.

Ibbotson, H. L., College Road, Perry Common, Birmingham.
Iceton, J., Langdon Beck Hotel, Forest, Middleton in Teesdale.
Iliffe, Joseph, Port House, Coventry Road, Hinckley.
Innes, Col. J. A., D.S.O., Horringer Manor, Bury St. Edmunds.
International Harvester Company of Great Britain, Ltd. (represented by Arthur Neale) 259, City Road, London, E. C. 1.
Ireland, Miss Ellen L., East Balmirmer, Arbroath, Scotland.
Iveagh, Earl of, C.B., C.M.G., 11, St. James's Square, S.W. 1.

Jack, A., Manor Farm, Singleton, Chichester.
Jackson, J. & H. (represented by H. Jackson), Eden Bank, Culgraith, Penrith.
James, Miss E. E., Copt Heath Farm, Solihull, Warwickshire.
James, Miss Rachel, Llancayo, near Usk, Mon.
Jamieson, J., Round Bush, Annan, Dumfriesshire.
Jeffrey, A., Elmsley Works, Edinburgh Road, Walthamstow, E. 17.
Jenkins, Miss O., Shire Hall, Hereford.
Jenkinson, F. H., 14, Church Lane, Handsworth, Birmingham.
Jenkinson, Hon. Mrs. R., Knap Hill Manor, Horsell, Surrey.
Jenkinson, W. D., 14, Church Lane, Handsworth, Birmingham.
Jennings, John E., Restormel, Lostwithiel, Cornwall.
Jersey Agricultural Products, Ltd., 74, Halkett Place, St. Helier, Jersey, C.I.
Jervoise, A. T. E., White Lodge, Speen, Newbury (L.M.).
Jervoise, Major F. H. T., Herriard Park, Basingstoke.
Jervoise, Miss F. H., Fargett's Farm, Arborfield, Berks.
Jervoise, Mrs. B., Herriard Park, Basingstoke, Hants. (L.M.).
Jessop, W. Frank, Thomley Hall, Aylesbury, Bucks.
Jobey, Richard F., 2, Hesketh Crescent, Torquay.
Johnson, Mrs. E., Ashton Hayes, Chester.
Johnson, J. W., 19, Westgate, Peterborough.
Johnson, Miss M., Meadow End Poultry Farm, Cradley, Malvern, Worcs. (L.M.).
Johnston, William Hunter, 17, Cumberland Park, Acton, W. 3.
Jones, D., Merwsrydd, Aberayron, Cardiganshire.
Jones, D. E., 23, Bury Street, London, W.C. 1.
Jones, Griffith, Shire Hall, Llangefni, Anglesey.
Jones, G. Cecil, 43, Great Tower Street, London, E.C. 3.
Jones, Major Harry, The Elms, Brandon, Suffolk.
Jones, Isaac, Llysfasi Farm Institute, Ruthin.
Jones, Miss Elsie, Agricultural Office, Builth Wells, Breconshire.
Jones, Miss J., Shire Hall, Langefni, Anglesey.
Jones, Miss M., The County Dairy, Houghall, Durham.

Jones, William C., Hatherton Lodge, near Nantwich.
Jopson, D., Ormathwaite Hall, Keswick, Cumberland.
Joyce, John, Milverton, Somerset.
Jury, Sir William, Sherwood House, Bath Road, Reading.

KAY, Dr. H. D., National Institute for Research in Dairying, Shinfield, near Reading.
Keeble, J. R., Brantham Hall, Manningtree.
Keeling, P. G., 189, Finney Lane, Herald Green, Cheshire (L.M.).
Keevil, C. P., 228, Central Market, Smithfield, E.C. 1.
Kelly, J. M., North Wycke, Southminster, Essex.
Kendall, J. N., Brimpsfield Park, Gloucester.
Kennedy, Mrs. Watson, Wiveton Hall, Cley, Norfolk.
Kent, T., Overton Farm, Tean, Stoke-on-Trent.
Kenworthy, J., Hurst Hall, Ashton-under-Lyne.
Kidd, R., Kayi Lami, Burton Joyce, Nottingham (L.M.).
Kidner Bros., Stoke Holy Cross, Norwich.
King, E. A., Val Shema, Cheltenham Road, Gloucester.
King, E. F., Springfield Farm, Nakurn, Kenya, British East Africa.
King, Dame E. Locke, Brooklands, Weybridge, Surrey.
King, G. E., 23, North Cross Road, East Dulwich, London, S.E. 22.
King, J. D., Broom Farm House, Biggleswade.
King, G. W., Ltd. (represented by L. T. Tubbs), Hartford Works, Hitchin.
Kingscote, Geo. S., Gloucester Dairy Supply, Ltd., Gloucester.
Kirby, Arthur T., Nuneham Courtenay, Oxford.
Kirkpatrick, A. & A., Barr, Sanquhar, Scotland.
Kistler, G. H., Hotel Chy-An, Albany, St. Ives, Cornwall.
Knight, J. R., 4, Church Street, Lower Edmonton, N. 9.
Knowles, Miss Margaret, Chipping Dairy, Longridge, Preston.
Knox, Major-Gen. Sir Alfred, K.C.B., C.M.G., 13, South Street, W. 1.
Kraft Dairies Ltd. (represented by W. H. Gittins), Ruyton XI. Towns, Salop.

LAIDLAW, D. G., Diswellstown, Castleknock, Co. Dublin.
Lamb, Sir Joseph Q., J.P., M.P., Oaklands, Eccleshall, Staffs.
Lambe, Air Vice Marshal Sir Charles, Grove House, Semley, Shaftesbury.
Lambton, General The Hon. Charles, D.S.O., Naval and Military Club, 94, Piccadilly, London, W. 1.
Lamington, Lord, G.C.M.G., Lamington House, Lamington, Lanarkshire.
Lancaster, H., The Creamery, Saighton, near Chester.
Lands End Co-operative Dairy Co., Ltd. (represented by C. W. Augove), St. Buryan, Cornwall.
Lane, E. H., Hill House, Crowhurst, near Battle, Sussex.
Lane, Capt. R. W., Debden Mount, Loughton, Essex.
Lane & Williams, Fewhurst, Billingshurst, Sussex.
Lang, J. & D. (represented by J. Lang), Manor Farm, Claygate, Surrey.
Langman, Sir A. L., C.M.G., J.P., North Cadbury, Somerset.
Larkworthy, Miss M. V., Cooper's Bridge, Bramshott, Hants.
Latter, K. A., Weald Place, Sevenoaks, Kent.
Lawrence, Col. The Hon. Sir G., K.C., D.S.O., Hill Farm, Oaksey, Wilts.
Lawrence, Miss M. P., Thorpes Farm, Hawkhurst, Kent.
Lawrence & Co., Ltd. (represented by F. W. Cave), 132, Latimer Road, W. 10.
Lea, John, Fairfield, Bradwall Road, Sandbach, Cheshire.
Lea, William L., Bryn Euryn, Colwyn Bay.
Lear, H. Howard, Dornford House, Gloucester.
Leech, George H., The Greaves, Rochdale, Lancs.
Legge, Lady Joan, Three Hammers, Coven Heath, Wolverhampton.
Leighton, H. N., 42, Bramley Avenue, Coulsdon, Surrey.

Leitch, Prof. Renwick H., M.A., D.Sc., Dairy Research Laboratory, Auchincruive, Ayr, Scotland.
Leitrim, Earl of, Mulroy, Co. Donegal (L.M.).
Lewis, Miss Flossie, Court Farm, Llanmartin, Newport, Mon.
Lewis, Mrs. H. D., Combwell Priory, Flimwell, Kent.
Lewis, T. H., Ltd. (represented by W. W. Travis), 122, Gloucester Road, Chalk Farm, London, N.W. 1.
Ley, Sir Gordon, Bart., Furze Down, King's Somborne, Hants.
Lidstone, W. J. G., 150, High Street, Slough, Bucks.
Lilburn, J., Craigforth, Elie, Fife.
Liles, C., & Son (represented by James L. Adamson), 26, Floral Street, W.C. 2.
Lilford, Lord, Lilford Hall, Oundle, Northants.
Limbrick, W. H., Badminton, Glos.
Lind, James, Woodredon Farm, Waltham Abbey, Essex.
Ling, A. W., M.Sc., University of Bristol, 22, Berkeley Square, Bristol 8.
Lingard, Capt. D., 47, Cannon Street, Manchester.
Lipscombe, A., Mount Dairy Farm, Denham, Bucks.
Lister, R. A., & Co., Ltd., Dursley, Gloucestershire.
Little, George, 1, Brook Street, Huddersfield.
Little, Miss Emily K., Ivydene, Charlton Road, Wantage, Berks.
Little, Miss J. K. B., Armsworth Hill, Alresford, Hants.
Liverine, Ltd. (represented by Hendric King), Grimsby, Lincs.
Livingstone-Learmonth, Capt. N., J.P., Fifehead Magdalen, Gillingham, Dorset.
Llewellin, G. Herbert (representing G. Llewellin & Son), Haverfordwest.
Lloyd, Sir John B., Foxbury, Stone Street, near Sevenoaks.
Lloyd, J. L., Piburlwyd Farm Institute, Carmarthen.
Loch, Major-Gen. Lord, Stoke College, Stoke-by-Clare, Suffolk.
Locke, R. C., M.R.C.V.S., Public Health Dept., Sunlight House, Quay Street, Manchester 3.
Lockett, K., & Son, Hill Farm, Moreton Wood, Whitchurch, Salop.
Lockwood, A. S., 59, Cadogan Square, London, S.W. 1.
Lockwood, S. S., Normanby Hill, Sinnington, York.
Loder, E. J., Ryall's Farm, Folke, Sherborne, Dorset.
Loder, Lady, Leonardslee, Horsham, Sussex.
Loftus, F., Preese Hall, Weeton, Kirkham, Lancs.
Logan, James, Powis Mains, Stirling.
Logan, John M., Beauchamps Farm, Buntingford, Hertfordshire.
Logan, Thomas, Low Milton, Maybole, Ayrshire.
Logan, W. & J. (represented by W. Logan), Burton Farm, Ayr.
Lohoar, R., Greenlees, Cambuslang, Glasgow.
Long, F., Humberstone Dairy Farm, Great Yarmouth.
Longden, G. A., Draycott Lodge, near Derby (L.M.).
Longe, H. D., J.P., Abbot's Hall, Stowmarket.
Longhurst, Mrs. M. D., Millside, Ponswood Road, St. Leonards, Sussex.
Lonsdale, Earl of, K.G., G.C.V.O., Lowther, Penrith, Cumberland.
Loveless, A. W. H., Priors, Keston, Kent.
Lovell, Ernest J., The Orchard, Newdigate, Surrey.
Lovell, W. G., 12, West Smithfield, London, E.C. 1.
Lowndes, William, The Bury, Chesham, Bucks. (L.M.).
Loyd, A. Thomas, Lockinge House, Wantage, Berks. (L.M.).
Lucas, Albert E., The Manor House, Stowe Nine Churches, Weedon, Northants.
Luckin, A., Orfold, Wisborough Green, Billingshurst.
Lumley, Miss M., Manor House, East Heslerton, Malton, Yorks.
Lund, T., Willow Farm, Catforth, Lancs.
Lupton, N. D., Chalmington, Dorchester, Dorset (L.M.).

Lymington, Viscount (all communications to F. J. Hunt, Estate Office, Farleigh Wallop, Basingstoke).
Lymposs, C., Piccards Farm, Guildford.
Lymposs, Fred. W., Tilehouse Farm, Guildford.
Lyon, James, Orange Court Farm, Guildford.
Lyon, Lt.-Col. Charles, Appleton Hall, Warrington, Cheshire (L.M.).

MacAndrew, E. G., Pallinghurst, Baynards, Horsham (L.M.).
Macdougall, Major Ian, O.B.E., 73, Southampton Row, London, W.C. 1.
Macintosh, E., Boxhill Farm, Dorking, Surrey.
Mackay, D., Symonds Hyde, Hatfield, Herts.
Mackay, Robert, Bruchag, Rothesay.
Mackay, W., Suttons Farm, St. Albans.
MacKenzie J., 50, Hamilton Place, Edinburgh.
Mackereth, Mrs. S., Tongues Farm, Preesall, Fleetwood, Lancs.
Mackie, James, Relief, Ecclefechan, Dumfriesshire.
Mackie, J. Hugh, Park Cottage, Castle Cary, Somerset.
Mackie, Robert W., Park Cottage, Castle Cary, Somerset.
Mackintosh, James, National Institute for Research in Dairying, Shinfield, near Reading.
Mackintosh, Sir Harold, Bart., Conyngham Hall, Knaresborough.
MacLean, D. C., National Institute for Research in Dairying, Shinfield, nr. Reading.
Macqueen, Miss M. M., c/o Barclays Bank, Melbury Court, Kensington High Street, W.8.
MacRobert, Sir Alastair W., Bart., Trustees of, Douneside Home Farm, Tarland, Aberdeenshire.
McCall, Robert, Munster Institute, Cork.
McCallum, J. W., Grange Farm, Chartridge, Chesham, Bucks.
McClemont, J., National Institute for Research in Dairying, Shinfield, near Reading.
McColm, Samuel, Garrochtrie, Port Logan, Stranraer.
McCombe, W. B., Westcroft, Luttrell Avenue, Putney, S.W. 15.
McGregor, J., Department of Agriculture, The University, Leeds.
McIlwraith, G. A., Stannock, Isle-of-Whithorn, Newton Stewart, Wigtownshire.
McIntyre, J., junr., Logan Mains, Port Logan, Stranraer.
McLaren, Miss H. C., The Drove Way, Buxted, Sussex.
McMaster, David, Mount Bures Hall, Bures, Essex.
McMenemy, J. J., Parkhouse, Kinnesswood, Kinross-shire.
McNair, W., Long Clawson Dairy, Ltd., Long Clawson, Melton Mowbray.
McVicar, A., 22, Hamilton Road, Lincoln.
McWilliam, Mrs. A. S., M.B.E., The Orchard, Bakewell, Derbyshire.
McWilliam, G., Dunwood Manor Farm, Romsey, Hants.
Madsen-Mygdal, T., Edelgave, Maalov, Denmark (H.M.).
Magee, T., Salwick Hall, Salwick, near Preston.
Main, Alex., M.A., B.Sc., N.D.A., Board of Agriculture for Scotland, York Buildings, Queen Street, Edinburgh.
Main, R. D. S., The Manor Farm, Elmley Castle, Pershore, Worcestershire.
Major, A. J., Ditton, Slough, Bucks.
Major, J. R., 108, High Street, Ramsey, Hunts.
Malmesbury & Parsons' Dairies, Ltd., 103, Christchurch Road, Boscombe.
Mamhead, Lord, Mamhead Park, Exeter.
Manchester, Sir W. E., J.P., 8, Tavistock Place, London, W.C. 1.
Manger, Herbert A., 57, High Street, Kingsland, London, E. 8 (L.M.).
Mann, Sir Edward, Bart., Thelveton Hall, Diss, Norfolk.
Mansfield, W. S., Cambridge University Farm, Cambridge.
Mappin & Webb, Ltd., 158-162, Oxford Street, London, W. 1.
Mapstone, R. G., Northload Hall, Glastonbury.

Margarson, T. J., M.R.C.V.S., Camden House, Linden Road, Stroud, Glos.
Marriott, R., Farm House, Rushden, Northants.
Marsh, A. E. (representing Marsh & Baxter, Ltd.), Brierley Hill, Birmingham.
Marshall, E., 7, Gregory Street, Lenton, Nottingham.
Marsland, Miss N.
Mart, Miss S., Orchards, Wire Mill, Lingfield, Surrey.
Martin, F., Ryne Hill, Kingham, Oxford.
Martin, John, Nether Hall, Fletching, Sussex.
Martindale, J. D., Avenham Hall Farm, Singleton, near Blackpool.
Martlew, T., 56, Woodlands Park, Girton, Cambridge.
Masham Farmers' Dairy Co-operative Society, Ltd. (represented by R. E. Peacock), Wellgarth Dairy, Masham, Yorks.
Mason, Miss Jean, The Elizabethan Cottage, Barming, Kent.
Massey, Miss M., Lancs. C. C. Farm, Hutton, near Preston.
Mather, H., Sidegarth, Staveley, Westmorland.
Mathers, J., Castlegate, Newark (L.M.).
Mathews & Skailes, Ltd., 30, Denman Street, London, S.E. 1.
Mathie, W., Myremill, Maybole, Ayrshire.
Matthews, H., Down Farm, Winterbourne, Bristol.
Matthews, Miss Annie, Avonwen, Heenan Road, Old Colwyn, N. Wales.
Matthews, Miss Jessie, The University, Reading.
Mattick, A. T. R., National Institute for Research in Dairying, Shinfield, near Reading.
Maundrell, S. W., Lushill Farm, Highworth, Wilts.
Maxted, O. D., Upper Gorrington, Littlebourne, Canterbury.
Maxwell, Hon. Stella F., Hill Farm, Layer-de-la-Haye, Colchester.
Maxwell, Hon. Zoe E., Hill Farm, Layer-de-la-Haye, Colchester.
Maxwell-Jackson, Miss M., Percy House, Scotton, nr. Knaresborough.
May, Mrs. H. P., The Priory, Tiptree, Essex.
May, W. C., Australian Dairy Produce Board, Adelaide House, London Bridge, E.C. 4.
Maycock, B. K., The Tudor Press, Ltd., 75, Carter Lane, London, E.C. 4.
Mayhew, Lt.-Col. John.
Mayo, H. G., Dales Corner, Piddlehinton, Dorchester.
Mead, V. V., Home Farm, Great Chalfield, Melksham, Wilts.
Mears, C. H., Westmere, Childsbridge Lane, Kemsing, Sevenoaks, Kent.
Mee, F. S., Shepshed, Leicestershire.
Meikle, J., Camregan, Girvan, Ayrshire.
Meinertzhagen, Mrs. G., Theberton House, Theberton, Leiston, Suffolk.
Melvin, Sir Martin J., Bart., J.P., Billesley Manor, Alcester.
Memmory, A. B., Blagreaves Lane, Littleover, Derby.
Merrall, E., 15, Sunny Mount, Keighley, Yorks.
Merrick, T. H., Hurdlesgrove, Whitchurch, Aylesbury.
Merriman, H. P., Codmore Farm House, Chesham.
Michaud, G., Union Centrale des Producteurs Suisses de Lait, Laupenstrasse 7, Bern, Switzerland (H.L.M.).
Mildmay of Flete, Lord, Ivybridge, South Devon.
Miles, C. S., 13, Harborough Road, Streatham, London, S.W. 16.
Miles, F. A., Bladen Dairies, Ltd., Milborne St. Andrews, Blandford, Dorset.
Miller, John R., Midkelton, Castle Douglas.
Miller, R. Scott, Pittachar, Crieff, Perthshire.
Miller, Ball & Toulmin, Ltd. (represented by S. Kirkham), 81, Fishergate, Preston.
Miller-Hallett, Alexander, c/o Messrs. Tamplin's Brewery Ltd., 1, Richmond Terrace, Brighton.
Milne-Harrop, Capt. N., Garthgynan, Ruthin, N. Wales.
Minett, Dr. F. C., Royal Veterinary College, Camden Town, N.W. 1.
Mitchell, H. E., Great Pellingbridge Farm, Scaynes Hill, Sussex.

Mitchell, Miss M., Grayrigg, Old Colwyn, North Wales.
Mitchell, P. Thomas, Banks Farm, Moreton-in-Marsh.
Mitchell, Walter, & Sons (represented by A. Mitchell), Ayr.
Mitford, Capt. The Hon. B., D.S.O., R.N., Swinbrook, Burford, Oxfordshire.
Molassine Co., Ltd. (represented by S. W. Goodman), Greenwich, S.E. 10.
Mond, Sir Robert, J.P., Combe Bank, near Sevenoaks, Kent.
Money-Coutts, Capt. The Hon. Hugh (L.M.).
Monie, Miss E. M., Somerset Farm Institute, Cannington, Bridgwater.
Mono Containers, Ltd. (represented by H. L. Usborne), Park Royal, N.W. 10.
Monsell, Viscountess, C.B.E., Dumbleton Hall, near Evesham, Worcestershire.
Montagu, Hon. G. S., Black Lake Poultry Farm, Egham, Surrey.
Montgomerie, A. W., Lessnessock, Ochiltree, Ayrshire.
Moore, Mrs. R., Hammer House, Sutton Bridge, Wisbech.
Moore, Miss V., Lancs. C.C. Dairy School, Hutton, nr. Preston.
Moore, W. E., Baddiley Farm, Nantwich, Cheshire.
Moore, W. P., Whitehall, Mealsgate, Cumberland (L.M.).
Moores, James, Greylands, Princes Risborough, Bucks.
Morcom, Mrs. Reginald K., The Clockhouse, Bromsgrove.
More-Molyneux, Brig.-Gen. F. C., Loseley Park, Guildford, Surrey.
Morgan, D. J., Lampeter, Cardiganshire.
Morgan, Rev. E. A. D., Trefonen Rectory, Oswestry, Salop.
Morgan, G. T., Hyfrydle, Penparcau, Aberystwyth.
Morgan, H., Great Gobions Farm, Hertford.
Morgan, J. Pierpont, Estate Office, Wall Hall, Watford, Herts. (All communications to John Fleming).
Morris, Capel, Ingleside, The Drive, Hove (L.M.).
Morse, Capt. F. A. V., Upper Cowden, Five Ashes, Sussex.
Morten, J., 23, Spencer Road, Buxton.
Morton, E. P., Salroyd House, Low Moor, Bradford.
Morton, Robert, & Co., Ltd., Trent Works, Burton-on-Trent.
Mountain, H. S., Groombridge Place, Kent.
Moyne of Bury St. Edmunds, Lord, 10, Grosvenor Place, S.W. 1.
Muddell, W. A., Thoroton, Aslockton, Notts.
Muirhead, Major A. J., M.P., Haseley Court, Oxford.
Muller-Rowland, J., Church Hill House, Horsell, Woking.
Munday, Allan, Lavant Street, Petersfield.
Mundy, Major G. M., Red Rice, Andover, Hants.
Munnings, W. G., The Rookery, Weybread, Harleston, Norfolk (L.M.).
Munro, A., Leanach, Culloden Moor, Inverness.
Murdock, J. K., 95, Bothwell Street, Glasgow.
Murphy, Miss R., Munster Institute, Cork.
Murray, Alexander, Kilfillan, Glenluce, Wigtownshire.
Muzzlewhite, G. H., Redland, Tavistock, Devon.

Napier, Major C., East Mill, Fordingbridge, Hants.
Nathan, J. & Co., Ltd. (represented by W. H. Cummings), 28/32, Chiswell Street, London, E.C. 1. (L.M.).
National Society for Epileptics (represented by E. Reddaway), The Orchards, Chalfont Colony, Gerrards Cross.
Neal, E. D. C., Ivanhoe, Shinfield Road, Reading.
Neale & Gough (represented by A. R. Gough), Corsham, Wilts.
Neaverson, A., Peakirk, Peterborough.
Nell, W. A., Fir Island, The Ridgeway, Mill Hill, N.W. 7.
Nelson, W. H., The Launds, Cockerham, near Lancaster (L.M.).
Neumann, Sir Cecil, Bart., Burloes, Royston, Herts.
Newman, W. J., Hall Farm, Burnham-on-Crouch, Essex.

Newton, N., Copshurst Farm, Lightwood, near Longton, Staffs.
New Zealand, High Commissioner of (represented by S. C. Manhire), Produce Office, 415, Strand, W.C. 2.
Nicholas, Miss A. J. W., County Hall, Truro (H.M.).
Nichols, Arthur, Park Farm, Northwood, Middlesex.
Nicholson, Col. A. F., Stockwell House, Leek, Staffs.
Nicholson, Major H. B., Mappercombe Manor, Melplash, Dorset.
Nicholson, John, 10, Great George Street, London, S.W. 1.
Nielsen, C. F., Avonlea, Dartington, Totnes, S. Devon.
Nix, George, The Green, Winchmore Hill, N. 21.
Noble, Miss Edith, Farm Institute, Penkridge, Stafford.
Noden, A., Aston Lower Hall, Worleston, Nantwich, Cheshire.
Noel, Mrs. H. C., Market Overton, Oakham, Rutland.
Norbury, Miss D. G., Silverbeach, Pevensey Bay, Sussex.
Norbury, Miss S. G., Egmont, St. Mary's Lane, Sidley, Sussex.
Norman, R. C., Estate Office, Much Hadham, Herts.
Norrish, R. S., & Sons (represented by W. H. Norrish), R.S.N. Dairy Farms, Sampford Peverell, Devon.
North, M. F., Loxwood House, Billingshurst.
Nunnerley, T. W., Crudgington Manor, Wellington, Salop.
Nuttall, J. M., & Co., Ltd., Dove Dairy, Hartington, Buxton.
Nuttall, William N., Stilton Dairy, Woodeaves, Ashbourne, Derbyshire.

OAKE, WOODS & Co., LTD. (represented by E. B. Down), Gillingham, Dorset.
Oakes, Miss B. F., Staff House, Horticultural College, Swanley, Kent.
Oats, L., Sancreed, New Bridge, Cornwall.
Ogden, H., The Springs, Morton, Bingley, Yorks.
O'Hagan, Major Lord, 16, Eaton Square, London, S.W. 1 (L.M.).
Oliver-Bellasis, Capt. R., J.P., Shilton House, Coventry.
Olympia Oil & Cake Co., Ltd. (represented by H. R. Humphries), Unilever House, Blackfriars, London, E.C. 4.
Onslow, Countess of, Clandon Park, Guildford.
Onslow, Earl of, Clandon Park, Guildford.
Osborne, G. H. N., Rectory Farm, Charlton Musgrove, Wincanton.
Osmond, L. K., Osmond & Sons, Ltd., Doughty Road, Grimsby (L.M.).

PAGE, Cyril H., Saxons, Tongdean Avenue, Hove, 4.
Page, Edmund, Ivythorne Manor, Street, Somerset (L.M.).
Page, F. H., Woodlands, Gt. Horkesley, Colchester.
Page, H., The Cedars, St. Horkesley, Colchester.
Page, S. Palgrave, J.P., 27, Oakwood Court, Kensington, London, W. 14.
Palethorpes, Ltd. (represented by H. Palethorpe), Dudley Port, Staffs.
Palmer, G. A., Ltd., Wykin, Hinckley.
Palmer, G. C. W., Sheene Manor, Meldreth, Royston, Herts. (L.M.).
Palmer, L. T., 3, Arundel Gardens, Westcliff-on-Sea.
Palmer, Mrs. W. Howard, Heathlands, Wokingham, Berks.
Palmer, Reginald H. R., Hurst Grove, Twyford, Berks. (L.M.).
Palmer, Thomas W., 10, Lloyd's Avenue, London, E.C. 3.
Pandya, B. U., San Thome Dairy Farm, Mylapore, Madras, India.
Pape, Mrs. A. M., Forest Lodge, Binfield, Bracknell, Berks.
Parish, Miss L., Greenacres, Adlington, near Macclesfield.
Parker, Robert E., Easton Hall, Norwich, Norfolk (L.M.).
Parker, R. W., Cooks Pitt, Faddiley, Nantwich.
Parkin, Lt.-Col. J. F., c/o Lloyds Bank, 6, Pall Mall, London, S.W. 1.
Parkinson, B., Creskeld Hall, Arthington, Yorks.
Parr, L. H., The Mile House, Leighton, Crewe.
Parr, Roger C., Grappenhall, Heyes, Warrington (L.M.).

Parsons, E. V. E., Buckworth, Whiteparish, Salisbury.
Parsons, J. D. Toogood, jun., Grasmere, Hurstpierpoint, Sussex (L.M.).
Parsons, R. C., 62, Portland Road, Holland Park Avenue, W. 11.
Parton, Stanley, Weston Hall, Crewe.
Patmore, C., Medcalf Dairy Farm, Enfield Lock, Middlesex.
Paton, Mrs. I. R., Inverugie, Gartmore Road, Paisley.
Paul, Stuart, Freston Lodge, near Ipswich.
Payne, Cyril, 27, Parkview Court, Hurlingham, London, S.W. 6 (L.M.).
Payne, J. C. L., Old Beech Cottage, Ashtead, Surrey.
Paynter, Mrs. M. M., The Hill, Blackford, Carlisle.
Peacock, Thomas, Cotton Edmunds, near Chester.
Pearce, N., Lower Court Farm, Long Ashton, near Bristol.
Pearson, Hon. Clive, Parham, Pulborough (L.M.). (All communications to C. Sherston, Parham Estate Offices, Pulborough, Sussex).
Pearson, J., Firlands, Forres.
Pearson, W., New Hall Farm, Pilling, near Preston.
Pedley, G. A., South Street, Crewe.
Peel, John G., Peover Hall, Knutsford, Cheshire (L.M.).
Pegler, H. S. Holmes, Coombe Bury, Foley Road, Claygate, Surrey (H.L.M.).
Pelly, Mrs. H. R., Lyndsays Farm, Ingatestone, Essex.
Pelly, Miss K., Theydon Place, Epping, Essex (L.M.).
Penrhyn, Lord (Agent, Major R. J. Wordsworth), Penhryn Estate Office, Bangor.
Perfect Dairy Machines, Ltd. (represented by J. W. Samels), Vauxhall Station, London, S.E. 11.
Perkins, Percy E. W., The Bowers, Holme Lacy, Hereford.
Perkins, T. W. M., Ufton Court, Holme Lacy, Hereford.
Perry, Harry, 6, Alverton Street, Penzance.
Peters, M. J., Cuillins, Manor Road, Reigate.
Petre, Oswald, J.P., D.L., Bosworth Hall, Rugby, Warwickshire.
Pettifer, T., & Co., Ltd. (represented by T. P. Pettifer), Eydon, Rugby.
Pettit, S. W., 46, High Street, Walthamstow, E. 17.
Peyton, Mrs. T. H., Colomendy, Mold, Flintshire.
Phelan, M. F., Cleave Barton, Northam, Devon.
Philipson, J., Street Farm, Jevington, Polegate, Sussex.
Philipson, Miss J., Dairy School, West of Scotland Agricultural College, Auchincruive, Ayr.
Phillimore, Admiral Sir Richard F., K.C.B., K.C.M.G., Shedfield House, Shedfield, Hants.
Phillips, A. G., Chesworth, Highfield Avenue, Pinner, Middlesex.
Phillips, E. S., East Hill House, Church Road, Wimbledon, S.W. 19.
Phillips, John F., Moldavia, Branksome Park, Bournemouth.
Philpott, Ernest E., Manstone Court Farm, near Ramsgate, Kent.
Pickering, Mrs. A., The Moothall, Newcastle-on-Tyne.
Pickford, Herbert H., Manor Farm, Patney, Devizes.
Pickles, John S., Salterforth, near Colne, Lancs.
Piddington Estates, Ltd. (represented by T. N. Cave), Horton, Northampton.
Pidduck, T. S., Corbrook Court, near Audlem, Cheshire.
Piggott Bros., & Co., Ltd. (represented by E. J. P. Clay), 220-226, Bishopsgate, London, E.C. 2.
Pilbrow H. J., Mapleton, Four Elms, Edenbridge, Kent.
Pinkstone, G. W., Lower Park Row, Bristol.
Pinkstone, Ltd., Lower Park Row, Bristol.
Pitman, Mrs. H. I., Scarletts, Twyford, Berks.
Plymouth, Earl of, Hewell Grange, Redditch, Worcs.
Pocock, W. D., Bolingbroke, Ealing Common, London, W. 5.
Poll, W. W., Beech Grove, Hethersett, Norwich.

Pool, David, Ickenham Manor, Uxbridge.
Poole, H. & B. (represented by H. Poole), Hill House, Lawford, Essex.
Pope, Miss E. J., Rectory Farm, Slimbridge, Glos.
Popham, H. Leyborne, J.P., Hunstrete House, Pensford, near Bristol.
Portch, Frank, Leigh Farm, Wincanton, Somerset.
Porter, John, B.Sc., Crowhamstone, Stone, Aylesbury, Bucks.
Pote, F. W.
Potter, Lieut.-Col. W. A., Lambley House, Woodborough, Notts.
Poultry World, Ltd. (represented by R. W. Haddon), Dorset House, Stamford Street, S.E. 1.
Powell, W. E., Cruckmoor Farm, Prees, Salop.
Preece, T. Percy, Broadward Hall, Leominster, Hereford.
Prescott, W. H., Highlands, Woldingham, Surrey.
Press, E. W. S., B.Sc., A.I.C., F.C.S., 252, Caledonian Road, London, N. 1.
Press, W. E., Wolvers, Reigate, Surrey.
Price, Miss A. S., County Offices, Haverfordwest.
Price, T. H., Westfield, Hendon Avenue, Finchley, London, N. 3.
Prichard, Miss A. A., Midland Agricultural College, Sutton Bonington, Loughborough.
Prideaux, Chas., Motcombe, Dorset.
Prideaux, George E., The Creamery, Stalbridge, Dorset.
Prince-Smith, W., Hillbrook, Keighley.
Pritchard, Miss Eleanor, County Offices, 37, Foregate Street, Worcester.
Procter, T., Brick House, Chipping, Lancs.
Prosser, H. E., Gt. Pinley Farm, Hatton, near Warwick.
Prosser, W., Sluice House, Peterstone Wentlloog, Rumney, Cardiff.
Provan, E. M., Mansfield Farm, Iver Heath, Bucks.
Pryor, Lt.-Col. W. M., D.S.O., Lamnock Manor, Stevenage. (All communications to Secretary, Estate Office, Weston, Stevenage, Herts.).
Punter, A. W., County Hall, Ipswich.
Purvis, G. H., Monmouth Agricultural Institution, Usk, Mon.
Pye, James, Ltd. (represented by James Pye), The Creamery, Kirkham, nr, Preston.
Pyman, Mrs. J. S., Norsebury, Sutton Scotney, Hants.

Raby, Tom, Goxhill, S.O., Lincoln.
Radcliffe, G. B., Pool Bank, Tarvin, Cheshire.
Radnor, Earl of, Longford Estate Office, Alderbury, Salisbury (L.M.).
Raison, M., 43/4, Shoe Lane, London, E.C. 4.
Rankin, A. M. & H., Ltd. (represented by D. Rankin), Rochford, Essex.
Rathcreedan, Lady, Bellehatch Park, near Henley-on-Thames.
Raw, Robert, Queen's Road, Bootle, Liverpool.
Ray, R., Eastfield, Spinney Hill, Northampton.
Rayleigh, Lord, The Bury, Hatfield Peverel, Essex. (All communications to G. M. Strutt, Estate Office, The Bury, Hatfield Peverel, near Chelmsford).
Rea, Eric, Agricultural Education Dept., 2, College Street, Gloucester.
Read, F., Polar Works, Manchester Road, Wilmslow, near Manchester.
Read, S. T., 40, China Street, Bulwell, Notts.
Reading, Sydney, Rectory Farm, Langford, Lechlade.
Reece, Frank A., 9-15, Hawke Street, Liverpool.
Reed, W. J. C., The Archway, Cirencester Street, Paddington, W. 2.
Rees-Mogg, Mrs. G., Clifford Manor, Stratford-on-Avon.
Reeves, Mrs. M., Knapp House, Clevedon, Somerset.
Reid, Mrs. F. M., Cherrytrees, Trimley St. Mary, Suffolk.
Reid, W., Nirvana, Longhill Avenue, Ayr.
Rempler, R. W., Alka Works, Minerva Road, N.W. 10.
Renouf, A. E., Glenfarg, Marlborough Avenue, Reading.

Renshaw, S. H., O.B.E., Myerscough House, Garstang, Lancs.
Rice, W., F.L.S., F.I.A.C., Barry House, Norsey Road, Billericay, Essex (L.M.).
Rich, Mrs. E., Wretham Hall, Thetford, Norfolk.
Richards, Miss O. M., 42, The Highlands, Edgware, Middlesex.
Richards, R., 2, Buckingham Road, Kingsland, N. 1.
Richardson, Capt. Alan J. M., Southrop Manor, Lechlade, Glos.
Richardson, C. S., Wheelbirks, Stocksfield, Northumberland.
Richardson, R., Prospect House, Scotforth, Lancaster.
Richmond & Chandler, Ltd. (represented by E. Mitchell), Globe Works, Southall Street, Manchester.
Rickards, H. M., Grove Farm, Middle Green, Langley, Bucks.
Rickeard, J. W., Scots Hall, Westleton, Suffolk.
Ricketts, A., United Dairies (London), Ltd., 106, Windmill Lane, E. 15.
Ridgeway, Miss U. A., N.D.D., B.D.F.D., West Corner, South Ella Estate, Kirkella, near Hull.
Ringer, A. Beverley, Mere House, Seething, Brooke, Norwich (L.M.).
Rippin, Capt. A. C., Thornton Lodge, near Horncastle, Lincs.
Ritchie, Walter W., 36, Elm Road, Reading, Berks.
Robarts, C. M., 100 Acre Farm, Northwood, Middlesex.
Robarts, G. L., New House Farm, Sheering, Harlow, Essex.
Roberts, Charles H., Boothby, Brampton, Cumberland.
Roberts, Major H. D., M.C., Hullers, Beare Green, Surrey.
Roberts, J. H. N., Vinchelez de Haut Manor, St. Ouens, Jersey (L.M.).
Roberts, R. J., Yoke House, Pwllheli, Carnarvonshire.
Roberts. T. G., Colemore House, Ellesmere, Salop.
Roberts, W. H. W., Burtholme, Brampton, Cumberland.
Roberts & Birch, Ltd. (represented by J. H. Birch), Mosley Street, Burton-on-Trent.
Robertson, Dr. G. S., D.Sc., F.I.C., Ministry of Agriculture, Stormont, Belfast.
Robinson, A., Old Dads House, Mellor, near Blackburn.
Robinson, F. L., The Little House, Kingston Road, Leatherhead.
Robinson, H. G., Midland Agricultural College, Sutton Bonington, Loughborough.
Robinson, Joseph C., Oaklea Warren, Newick, Sussex.
Robinson, Theodore R., 25, Campden Hill Gardens, London, W. 8.
Rogers, B. P., Llanerthil, Llandenny, Usk, Mon.
Rollings, A., Green Bank, Crewe Road, Nantwich.
Rook, John, Town Farm, Wooburn Green, High Wycombe.
Roper, C., The Laurels, Lenborough, Buckingham.
Rose, T. A., Churchill Heath, Kingham, Oxford.
Ross, Charles, 1, Elmwood Gardens, Jordanhill, Glasgow.
Ross, Colin D., 1, Richmond Road, Exeter.
Ross, Lester C. S., County Hall, Cardiff.
Rossiter, J., Cholwells, Kingsbridge, S. Devon.
Rotherham, Oswold E., Saxby-all-Saints, Brigg, Lincs.
Rottenburg, F. A., Lochlane, Crieff, Perthshire (L.M.).
Roussel, C. J., 209, Grand Route, Loos-lez-Lille, France.
Rowallan, Lord, Rowallan, Kilmarnock (L.M.).
Rowden, A. O., Hammett's Dairies, Ltd., 175/6, Sidwell Street, Exeter.
Rowling, John J., 52, Walnut Tree Walk, Kennington Road, S.E. 11.
Rowling, J. Ridley, 52, Walnut Tree Walk, Kennington Road, S.E. 11.
Rowntree, Alfred, The Dairy, Coverham, Middleham, Yorks.
Royal Agricultural and Horticultural Society of Guernsey (represented by E. de Garis, States Arcade, Guernsey).
Rubeck, O. P., Valencia, Meath Green, Horley, Surrey.
Rumbold, G. J., The Manor Farm, Dorney, Windsor.
Runciman, Mrs. H., Doxford, Chathill, Northumberland.

Russell, George P., Bickley Hall Farm, Bickley, Kent.
Rylands, Sir W. Peter, Massey Hall, Thelwall, near Warrington.

Sadler, A. P., Brick Wall Farm, Audlem, Crewe.
Sadler, James, Brassey Hall, Willaston, Nantwich, Cheshire.
Sadler, Mrs. A. F. Hayes, Charlton Abbotts, Andoversford, Glos. (L.M.).
St. Clere Estates, Ltd. (represented by Capt. W. Briggs), Estate Office, St. Clere, Kemsing, Kent.
St. Cyres, Viscountess, Walhampton, Lymington, Hants.
St. Maur, H., J.P., D.L. (L.M.).
Sainsbury, F., Blunt's Hall, Little Wratting, Haverhill, Suffolk.
Saint, H. J., Northcote House, St. Ives, Huntingdonshire.
Salopian Cattle Bowl Co. (represented by H. W. Batkin), Bank Farm, Prees, Whitchurch, Salop.
Saltmarsh, H. A., Barrow Hall, Bury St. Edmunds.
Sanderson, D. H., The Birks, Stamfordham, Northumberland.
Sanderson, F. H., Eshott Hall, Felton, Northumberland.
Sanderson, Miss W. J., Underwood, Riding Mill, Northumberland.
Sandwich, Earl of, Hinchingbrooke, Huntingdon.
Sankey, G. C., Down Lodge, Fairlight, Hastings.
Sargent, Miss M. H., 38, Flora Avenue, Darlington.
Savill, P. R. L., Welford Grange, near Rugby.
Savory, A. J., Highfields, Gt. Ryburgh, Norfolk.
Scalford Dairy Co., Ltd. (represented by G. M. Kirk), Scalford, Melton Mowbray.
Scatchard, T., Scarah Bank Farm, Ripley, Yorks.
Scatliff, H. P., Glebe Place, Pulborough, Sussex.
Scothern Dairy Co., Scothern Manor, Lincoln.
Scotney, T. M., West End Mills, St. Ives, Hunts.
Scott, G. A., Frome Cliff, Stapleton, Bristol.
Scott, H. H., Hartwell, Hartfield, Sussex.
Scott, L., Worlington Poultry Farm, Mildenhall, Suffolk.
Scott, R., Manchester House, Lea Brooks, Alfreton, Derbyshire.
Scottish Co-operative Wholesale Society, Ltd., (represented by A. McBride), 84, Morrison Street, Glasgow, C. 5.
Scottish Milk Marketing Board (represented by T. S. Henderson), 95, Bothwell Street, Glasgow, C. 2.
Scrimgeour, W., Wissett Hall, Halesworth, Suffolk.
Scriven, Wm. A., Agricultural Dept., 1, College Hill, Shrewsbury, Salop.
Sears, Arthur, 684, High Road, Leytonstone, Essex.
Sears, John L., Coxland, Ewhurst, Surrey.
Seaton, Lady C. M., Bosahan, Helston, Cornwall.
Secura Incubator Co., Ltd. (represented by E. F. Fairbairn), Willow Holme Mills, Caldewgate, Carlisle (L.M.).
Selby, L. T., 83, Leander Road, Thornton Heath, Surrey.
Seymour, Major Sir Edward, Iver Lodge, Iver, Bucks.
Shanks, Robt., Halland Park, East Hoathly, Sussex.
Shapland, G. F. D., Green Farm, Claverham, near Bristol.
Shapland, James L., Chaldon Court, near Caterham, Surrey.
Sharp, Sir Herbert, Bart., Morley Poultry Farm, Hasketon, Suffolk.
Shaw, H., Winterley House, Crewe.
Shaw, Miss V., 9, Halkin Street, London, S.W.1.
Sheldon, T. H., Cotham Manor, Newark, Notts.
Shelley-Rolls, Lady (Agent, Clement Lipscomb), The Hendre, Monmouth.
Shelley-Rolls, Sir John C. E., Bart., Avington, Alresford, Hants.
Sheppard, Miss A., British Dairy Institute, Reading.
Shirley, J. W., Silverton House, Woughton, Bletchley, Bucks.
Shotton, Miss S. J., Drummer Hill, Easby, Gt. Ayton, Yorks.
Shuttleworth, R. Kay, Meads Place, Eastbourne (L.M.).

Sibun, F. C., The Milk Industry, 8/9, Essex Street, W.C. 2.
Silcock, R., & Son (represented by T. B. Silcock), Stanley Hall, Union Street, Liverpool.
Sillars, R., & Son (represented by A. W. M. Sillars), Ickham Court, Canterbury.
Simmonds, Hunt & Montgomery, Ltd. (represented by G. H. Parry), Albion Buildings, Boundary Street, Liverpool.
Simms, J. C. W., Southgate House, Chichester.
Simpkin & James, Ltd. (represented by B. H. Crook), Leicester.
Skidmore, Miss E., Ashley Leigh, Box, Wilts.
Slater, W. H., Eyton Farm, Wellington, Salop.
Skinner, Jesse, Wressle, Brigg, Lincs.
Slattery, Miss N., Staff House, Horticultural College, Swanley, Kent.
Sloan, Mungo, Hunter House, Lochmaben.
Smart, W. H., & Co., Ltd. (represented by W. H. Smart), Wrentham Street, Birmingham.
Smith, A., East Sussex Milk Recording Society, 197, High Street, Lewes.
Smith, A. Carlyle, Sutton Hall. Woodbridge, Suffolk.
Smith, A. D. B., Animal Breeding Research Dept., West Mains, Edinburgh (L.M.).
Smith, Clement C., Walton Hall, Felixstowe.
Smith, David, Kilmaurs Mains, Kilmarnock.
Smith, Eustace Abel, Longhills, Lincoln (L.M.).
Smith, F. Clement, Walton Hall, Felixstowe.
Smith, G. R. H., Oxton Hall, Tadcaster.
Smith, James H., Peet's Lane, Churchtown, Southport.
Smith, Miss E. M., Grange Court, Portington, Eastrington, Hull.
Smith, Miss Jervoise, Sandwell, Totnes, S. Devon.
Smith, Hon. Mrs. E. M., Gumley Hall, Market Harborough.
Smith, J. Cowper, 38, Seaside Road, Eastbourne.
Smith, J. Hunter, Oaklands, near St. Albans, Herts.
Smith, J. W. & Son (represented by H. A. Smith), Monkton Court, Minster, Thanet, Kent.
Smith, Owen H., Langham House, Langham, Oakham, Rutland.
Smith, Percy, Whitchurch, Salop.
Smith, W. H., & Co., Ltd. (represented by W. H. Smith), Whitchurch, Salop.
Smith, W. P., Moorlands, Sale, Cheshire (L.M.).
Snell, William Follett, Marsh Farm, Yeovil, Somerset.
Snelling, A. P., 222, Ellerdine Road, Hounslow, Middlesex.
Snewin, F. W., 192, Lower Clapton Road, Lower Clapton, London, E. 5.
Snewin, S. P., 67-69, Old Hill Street, Stamford Hill, London, N. 16 (L.M.).
Snowden, A., Clayton Hall, Crosshills, Yorks.
Soames, Mrs. Geraldine, Long Buckby Wharf, Rugby.
Solomon, J., Radbourne, Chilton Avenue, Stowmarket, Suffolk.
Soper, James, Low Hall Farm, Chingford, E. 4.
South Africa, Government of the Union of (represented by the Trade Commissioner), Trafalgar Square, London, W.C. 2.
South Down Farm, Ltd. (Capt. E. Freeth), 50, Hill Road, Wimbledon, S.W. 19.
South Western Dairies, Ltd. (represented by W. J. Cordy), Sherborne, Dorset.
Sparrow, M. C. J., 70, Grand Parade, Harringay, N. 4.
Spence, Miss A. R., Horsehill, Bewdley, Worcs.
Spicer, Lady A. E. M., Spye Park, Chittoe, Chippenham, Wilts.
Spiers, A. A. Hagart, Eastbury Manor, Compton, Guildford.
Spillers, Ltd. (represented by C. W. Edwards), Advisory Dept., 40, St. Mary Axe, E.C. 3.
Spottiswoode, Mrs. E. H., Rooksnest, Lambourn, Berkshire.
Spratt's Patent, Ltd. (represented by S. T. Lethbridge), 58, Mark Lane, E.C. 3.
Sproat, J. B., Lennox Plunton, Borgue, Kirkcudbrightshire.

Sproston, C. T., Catten Hall, Frodsham, Cheshire.
Stafford, J. G. W., The Midland Agricultural College, Sutton Bonington, Loughborough.
Stafford, O. G. W., Kegworth, Derby.
Stair, Earl of, Lochinch Castle, Stranraer.
Stallard, T. H., Lower Farm, Darlingscott, Shipston-on-Stour.
Stanbury, P., Newton Barton, Drewsteignton, Exeter.
Stanhope, Earl, D.S.O., M.C., Chevening, Sevenoaks.
Stanley, Lord, Holwood, Keston, Kent.
Stapleton, Eric S., Owles Hall, Crews Hill, Middlesex (L.M.).
Stapleton, J. Gillard, Owles Hall, Crews Hill, Middlesex.
Stapleton, Mrs. J. G., Owles Hall, Crews Hill, Middlesex.
Steed, Percy W., Finglesham and Marley Farm, Eastry, Kent.
Steel, A., Temple Farm, Prittlewell, Southend-on-Sea.
Steel, J., Manor Farm, Grazeley, Reading.
Steel, John G., Rowan Lea, Blackwell Road, Carlisle.
Steel, N. R., Hookland Estate, Scaynes Hill, Sussex.
Steele, J. H., Staple Hill, Wellesbourne, Warwick.
Stent, S. J., Beechlands, Bedhampton, Hants.
Stephen, Miss Mary, Thorntons Farm, Northaw, near Potters Bar.
Stephen-Fox, H., Sharelands, Blackboys, Uckfield, Sussex.
Stephens, Horace W., Box 2, G.P.O., Gloucester.
Stephens, Theo. A., Frensham Manor, near Farnham, Surrey.
Stern, H. C., 12, Farringdon Avenue, London, E.C. 4.
Stewart, Sir E. O. MacTaggart, Bart., Ardwell Estates, Ardwell, Wigtownshire.
Stewart, Miss M. H., Hamewith, Main's Park, Chester-le-Street.
Still, William H., Addington, Surrey.
Stockdale, T. R., 33, Scalford Road, Melton Mowbray.
Stockley, B. P., Kent's Farm, Littlebury, Saffron Walden, Essex.
Stokes, Ernest, West Lees Farm, Logmore, Dorking, Surrey.
Stone, Alfred, Stoke Farm, Stoke Bardolph, Notts.
Storms Farm Dairy, Ltd. (represented by J. A. Spedding), Storms, Keswick.
Stradbroke, Earl of, K.C.M.G., C.B., C.V.O., C.B.E., 26, Belgrave Square, S.W. 1.
Strafford, Earl of, Dancer's Hill, South Mimms, Middlesex.
Straker, Mrs. John C., Stagshaw House, Corbridge, Northumberland.
Street, G. E., 83-93, Duncan Road, Portsmouth.
Strutt, Gerald M., Newhouse, Terling, Chelmsford.
Strutt, Mrs. G. M., Newhouse, Terling, Chelmsford.
Stuart, Thomas, New Hall, Sowerby, near Garstang.
Stubbs, Miss Jessie, Lancashire C. C. Dairy School, Hutton, near Preston.
Studley College (represented by Miss E. H. Ekins), Studley, Warwickshire.
Sutherland, A., The "Scottish Farmer," 93, Hope Street, Glasgow.
Sutton & Sons (represented by L. Noel Sutton), Reading.
Sutton, E. P. F., Erlegh Park, near Reading.
Sutton, G., Pewit Hall, Hunsterson, Nantwich.
Sutton, M. A. F., Sutton & Sons, Reading.
Sutton-Gill, H., 7, Manor Park Road, Manor Park, London, E. 12.
Swain, Percival (Platt & Swain), Wem, Salop.
Swales-Johnson, Mrs. M., Evendon Lodge, Wokingham.
Swan, J. W., Upsall Hall, Nunthorpe, Yorks.
Swann, H. H., Little Boarzell, Hurst Green, Sussex.
Swaythling, Lord, Townhill Park, West End, near Southampton.
Swift & Sons, Olympia Works, St. Thomas Street, Scarborough.
Swithinbank, C., Shrubbs Farm, Baynards, Sussex.
Swithinbank, H., Maybanks, Rudgwick, Sussex (L.M.).
Symonds, Arthur, Great Whelnetham Hall, Bury St. Edmunds.
Symons, G. W., Wells, Somerset.

TAIT, Mrs. J., Almont, Pinwherry, Ayrshire.
Tangye, A. C., Silligrove, Far Forest, Rock, S.O., Worcestershire (L.M.).
Tattersall, A. C., Watlingford, Bowdon, Cheshire.
Tattersall, Dr. W. H., Plas Gwyn, Gannock Park, Deganwy, N. Wales.
Taylor, Cortlandt, Platt House Farm, Wrotham Hill, Kent (L.M.).
Taylor, E., Glena Mount, Benhill Wood Road, Sutton.
Taylor, E. H., Ltd. (represented by W. L. Lordan), Beehive Works, Welwyn.
Taylor, F. H., Inspector of New Zealand Dairy Products, Department of Agriculture, Dairy Division, St. Olaf House (3rd floor), Tooley Street, S.W.1.
Taylor, John, Lauriston, Goldhanger, Maldon, Essex.
Taylor, J. S., Kirby, Whatcote, Shipston-on-Stour.
Taylor, Miss M. C., Somerset Farm Institute, Cannington, Bridgwater.
Templeton, G., Carnell Home Farm, Hurlford, Ayrshire.
Terry, F. N., Chebbard, Dorchester, Dorset.
Terry, Sir Francis W., Middlethorpe Manor, York.
Thomas, D. Ll., Llwynhaid, Bettws, Newport, Mon.
Thomas, S. B., University College, Aberystwyth.
Thomas, Alderman T., Caeffair, Llangemnech, Llanelly.
Thomas, W. A., County Offices, Aylesbury, Bucks.
Thomas, W., Blaenant, Newcastle Emlyn, Cardiganshire.
Thompson, A. P., The Feathered World, 9, Arundel Street, London, W.C. 2.
Thompson, Major W., Lonesome Farm, Reigate.
Thompson, W. A., Larkenshaw, Chobham, Surrey.
Thomson, G. Sutherland, Kenmore Farm, Whelpley Hill, Chesham.
Thomson, W. A., Dalpeddar, Sanquhar, Dumfriesshire.
Thomson, W. J., 98, Holm Street, Glasgow (L.M.).
Thorley, Joseph, Ltd., King's Cross, London, N. 1.
Thorlund, J. P., 164, Howard Street, Glasgow, C. 1.
Thornber, Edgar, Mytholmroyd, Yorks. (L.M.).
Thornbery, Miss K. M., Chadacre Agricultural Institute, Hartest, Bury St. Edmunds.
Thornborrow, T. J., 48, Wordsworth Street, Penrith.
Thornton, Francis Hugh, J.P., Kingsthorpe Hall, Northampton.
Tickle, J., & Sons (represented by Mrs. A. M. Tickle), Brompton Dairy Farm, Chatham, Kent.
Tilbury, H. W., High Street, Potters Bar.
Timberlake, J., Hastoe Farm, Tring.
Timson, Miss E., White Hill, Berkhamsted, Herts.
Tinsley, E. W., Durham County Mental Hospital Farms, Winterton, near Stockton-on-Tees.
Tipper, B. C., & Son (represented by C. N. Tipper), The Veterinary Chemical Works, Birmingham.
Todd, Alec, British Dairy Institute, Reading.
Tomkinson, Major C. W., Willington Hall, Tarporley, Cheshire.
Tomlinson, H. W., Polebarn House, Trowbridge, Wilts.
Tory, C. E., Higher Burton House, Dorchester.
Tory, Robert N., Anderson, Blandford, Dorset (L.M.).
Towers, Miss S., Woodside, Duxbury, near Chorley, Lancs.
Townend, Miss R., Shropshire Technical School for Girls, Radbrook, Shrewsbury.
Townshend, Mrs. Mildred H., Pabo Hall, Llandudno Junction, N. Wales.
Trafford, A., Dulands Farm, Bradbourne, Ashbourne, Derbyshire.
Travers, S. J., "Benward," Potter's Corner, Ashford, Kent.
Trench, Col. Hon. W. le Poer, St. Hubert's, Gerrard's Cross, Bucks. (L.M.).
Trenchard, Miss H. M., East Membury Farm, Membury, Axminster, Devon.
Tresidder, W. B. V., English Dairies, Crewkerne, Somerset.
Trevor, Stanley S., Frensham, Limes Avenue, Brockhurst, Northwich.
Trippe, Miss M. M., Monmouthshire Agricultural Institute, Usk, Mon.
Troup, L. G., Newburgh House, Winchester.

Trower, W. G., Stansteadbury, Ware, Herts.
Tudge & Maybery, Whittingslow, Marsh Brook, Salop.
Tunbridge Wells & South Eastern Counties Agricultural Society (The Secretary), 87, High Street, Tunbridge Wells.
Turner, A., Dean, Goodleigh, Barnstaple, Devon.
Turner, Miss A. I., Hortons, Cuckfield, Sussex.
Turner, C., 7/8, Queen's Square, High Wycombe.
Turner, H. B., Malverleys, near Newbury.
Turner, James, West Bank Farm, South Anston, near Sheffield.
Turner, James, Loaninghead, Balfron Station, Stirlingshire.
Turner, W., Offerton, Hindlip, Worcester.
Turnor, Christopher, Stoke Rochford, Grantham.
Turtle, Miss B. F., Wildcroft, Danbury Common, Essex.
Tustian, R., The Leys, Great Tew, Enstone, Oxon.
Tutton, G. O., British Poultry & Animal Research Co., Westminster Bank Chambers, St. Mary's Road, Liverpool, 19.
Tuxford & Tebbutt, Ltd. (respresented by John F. Crosher), Melton Mowbray.
Twentyman, W., Moor Court, Sparsholt, Winchester (L.M.).

U.D. ENGINEERING Co., LTD. (represented by Ben Davies), Abbey Works, Cumberland Avenue, Park Royal, N.W. 10.
United Dairies, Ltd. (represented by J. H. Maggs), 34, Palace Court, W. 2.
United Glass Bottle Manufacturers, Ltd. (represented by H. W. Wadsworth), 40/43, Norfolk Street, Strand, London, W.C. 2.
Upton, Major Edward, Coptfold Hall, Ingatestone, Essex (L.M.).

VAN HAEFTEN, BARON, St. James' Club, Piccadilly, London, W. 1.
Venesta, Ltd. (represented by H. Rutherford), Vintry House, Queen Street Place, London, E.C. 4 (L.M.).
Venner, Richard J., Westgate, London Road, Reading, Berks.
Vernon, R., The Commons Farm, Kelsall, Chester.
Vigus, W. H., Revels Croft, Bengeo, Hertford.
Viking Rennet Co. (represented by J. A. Campbell), 2 & 3, White Street, Moorfields, London, E.C. 2.
Villar, Capt. Sidney, F.R.C.V.S., Amersham Common, Bucks. (L.M.).
Vincent, C. G., Beomonds Farm, Chertsey, Surrey.
Vincent, Frederick, Oak Farm, Northill, Biggleswade, Beds.
Viney, P. H., Clays Copse, Sway, Hants.
Voelcker, Dr. J. A., 20, Upper Phillimore Gardens, Kensington, W. 8 (L.M.).
Vosper, Major N., Plas Coch, Ruthin.
Voss, Edward J., 202, Markhouse Road, Walthamstow, London, E. 17.

WAIDE, W., & SONS (represented by W. Waide), Crown Point Road, Leeds.
Walford, J. B., Gresty Green Farm, Crewe.
Walker, A. E., Lower House Farm, Dinas Powis, Cardiff.
Walker, E. G. F., The Hollies, Chew Stoke, near Bristol.
Walker, E. O. F., The Hollies, Chew Stoke, near Bristol.
Walker, F., Russia Hall, Tattenhall, Cheshire.
Walker, Harold, Marley Brow Farm, Bingley, Yorks.
Walker, H. E., The Farm, Llanedarne, near Cardiff.
Walker, Lt.-Col. H. S., Park House, Wortley, near Sheffield.
Walker, Capt. L. W., The Nook, Wells, Som.
Walker, R., Hatton Hall, near Chester.
Walker, S. E., Tilstock Road Farm, Whitchurch, Salop.
Walker & Son (represented by H. J. Walker), 4, Cheapside, Leicester.
Walker-Jones, Colonel F. A., Rocklands, Kendal, Westmorland (L.M.).
Wall, J., Bridge House, Rowsley, Derbyshire.
Wallace, J., Low Ersock, Whithorn, Wigtownshire.

Wallace, J. & R., The Foundry, Castle Douglas.
Wallace, Prof. R., Mid Park House, Kincardine, Fifeshire.
Wallace, Robert, Cherry Tree Hall, Datchworth, Herts.
Wallace, Samuel, Bedwell Park Farm, Hatfield, Herts.
Wallace, Walter, Knebworth, Herts.
Wallace, William E., Poplar Farm, Eaton Bray, Dunstable.
Walley, A. E., Bickerton Hall, Malpas, Cheshire.
Walley, George, Chorlton Old Hall, Malpas, Cheshire.
Walley, P. H., Towns Green Farm, Wettenhall, Winsford.
Walmsley, B., Skeynes, Edenbridge, Kent.
Walston, Lady, Newton Hall, Newton, Cambridge.
Walters, R. S., Norfolk Lodge, Sutton Coldfield, Warwickshire.
Walton, J. H., Thurston Hall, Framfield, Sussex.
Wander, A., Ltd. (represented by Sir Harry Hague), 184, Queens Gate, S.W. 7.
Ward, Miss A., Foggathorpe Hall, near Selby, Yorks.
Ward, R. Bruce, Godinton, Ashford, Kent.
Ward, T. L. Cokhay, Repton, Derby.
Ward, T. L. G., Southern Cross, Shaldon, near Teignmouth.
Wardrop, R. R., Bridge of Allan, Stirling.
Ware, H. M., Seletar, Dene Road, Northwood, Middlesex.
Warner, A., The Lawn, Longford, Glos.
Warren, F. C., 115, High Road, South Woodford, Essex.
Warren, Col. J. R., Handcross Park, Haywards Heath, Sussex (L.M.).
Warren, Col. T. R. P., Haydon Hill House, Aylesbury, Bucks.
Warren, R. A., 19, Foxgrove Road, Beckenham, Kent.
Warwick, Frances, Countess of, Easton Lodge, Dunmow, Essex.
Wasfi, Mohamed, 129, Sharia El Manial, Cairo, Egypt.
Watney, Bertram W. A., Brookwood Corner, Holmwood, Surrey.
Watson, Clem, 77, Paddock Road, Oxhey, Watford.
Watson, Sir Duncan, J.P., 62, Berners Street, London, W.1.
Watson, Miss E., 2, Hill Street, Arbroath.
Watson, Exors. of Sir William G., Bart., Sulhamstead House, near Reading.
Watt, J. W., Townhead, Rockcliffe, Carlisle.
Watts, Col. Humphrey, O.B.E., T.D., Haslington Hall, near Crewe.
Wauters, P., 5, rue Hobbema, Brussels, Belgium (H.M.).
Wayland, Lt.-Col. Sir W. A., J.P., Monks Horton, Stanford, Kent.
Webb, Miss E. A., 9, Burley Road, Oakham, Rutland.
Webster, Ralph, Abbey Ironworks, Waltham Cross.
Wedell, Count, Wedellsborg, Assens, Denmark (H.M.).
Weeks, G. K., Northleigh, Colyton, S. Devon.
Weightman, Albert, Middle Herrington Dairy Farm, Durham.
Weir, J. S., The Hall Farm, Bottisham, Cambs.
Welch, Miss I., Somerset Farm Institute, near Bridgwater, Som.
Welford, Edward, 277, Kentish Town Road, London, N.W. 5.
Welford, J. B., Ashridge, Cookham, Berks.
Welford, Sydney, 277/9, Kentish Town Road, London, N.W. 5.
Wellington, Duke of, K.G., G.C.V.O., Ewhurst, Basingstoke, Hants. (L.M.).
Wellington Live Stock Co., Ltd. (represented by J. Jefferson) (L.M.).
Wells, A. E., Broadcroft, Little Hallingbury, near Bishop's Stortford, Herts.
Wemyss, Lady Victoria, Wemyss Castle, Fife.
West, R. J., Old Bracknell College, Bracknell, Berks.
Wessex Supplies, Ltd., Wells, Somerset.
Westminster, Duke of, G.C.V.O., D.S.O., Eaton Hall, Chester. (All communications to H. P. Hamilton, Woodhouse Farm, Aldford, Chester).
Weston, A. F. A., Holme Grange, Wokingham, Berks.
Weston, Major C. F. R. N., Weston Estate Farm, Tuesnoad, Betherdsen, Kent.
Westropp, C. H., Melford Place, Long Melford, Suffolk.

West Somerset Dairy and Bacon Co., Ltd. (represented by J. Cottrill), Greenway Avenue, Taunton.
Wheatley, E. H., Cliftonthorpe, Ashby-de-la-Zouch.
Wheeler, W. J., Mathers Farm, Headington, Oxford.
White, B. H. J., Hill View Farm, Bruton, Som.
White, E., Manor Farm, Motcombe, Shaftesbury.
White, F. C., Markets Division, Ministry of Agriculture and Fisheries, 10, Whitehall Place, London, S.W. 1.
White, Prof. R. G., College Farm, Aber, Bangor, N. Wales.
White, Sir G. Stanley, Bart., Hollywood Tower, near Bristol (L.M.).
White, Sydney T., Sock Dennis Farm, Ilchester, Taunton.
White, Thomas, Hightae, Castle Douglas.
White, W. A., Woodfold, Down Hatherley, Gloucester.
White, W., & Son, Pool Farm, Taunton.
White, W. B., & Sons, Lower Farm, Anstey, Dorchester.
White, W. G., & Sons, Larbourne Farm, Thorney, Iver, Bucks.
White, Tomkins & Courage, Ltd. (represented by R. Clyde), 48, Mark Lane, London, E.C. 3.
Whitehand, W. J., Old Hall, South Walsham, Norfolk.
Whiteman, W. W., Abbotts Lodge, Sandhurst, Glos.
Whiter, J. E., Three Beeches Wood, Kingswood, Tadworth.
Whitley, H., Primley Hill, Paignton, South Devon.
Whitley, Mrs. S. R., Green Gables, Emmer Green, Reading.
Whitley, William, Barton Pines, Blagdon, Paignton, South Devon.
Whitmore, Col. F. H. D. C., Orsett Hall, Essex. (Agent: J. C. Chaplin, Manor Office, Orsett, Essex).
Whitnall, Miss S., Hill Farm, East Hanningfield, Chelmsford.
Whittaker, H. S. & W. G. (represented by H. S. Whittaker), Wardle Bridge, Nantwich.
Whitty, C. H., Stede Quarter Farm, Biddenden, Kent.
Whyte, J. M. H., Kirkmabreck, Stranraer.
W.-Hutton-Stott, F., Martin Place, Puttenham, near Guildford (L.M.).
Wickens, B. A., 8, Byron Drive, Cheadle, Cheshire.
Wigan, Mrs. J. T., Danbury Park, Chelmsford.
Wigmore, Alan J., 77, St. Aldate's, Oxford.
Wild, J., junr., Grotto Farm, Over-Peover, near Knutsford (L.M.).
Wilkins, William, Central Farm, Long Marston, Tring, Herts.
Wilks, T. N., Whartons Park, Bewdley, Worcs.
Willatts, J. E., Tithe Farm, Wraysbury, Staines.
Williams, G. P., Scorrier, Cornwall.
Williams, H. C., The Wood, Hadnall, Shropshire.
Williams, H. G., Llanteglos, Llanteg, Narberth, Pembs.
Williams, J., 13, Chapel Street, London, W.C. 1.
Williams, Major G. T., Tredrea, Perranwell, Cornwall (L.M.).
Williams, Miss M. S., Agricultural Education Office, Newtown, Mont.
Williams, Mrs. B., 5, Lime Grove Avenue, Carmarthen.
Williams, Mrs. G. H., Kayte Farm, Cheltenham, Glos.
Williams, Mrs. John, Scorrier House, Scorrier, Cornwall.
Williams, R., Rectory Farm, Walgrave, Northampton.
Williams, T. D., 39, High Road, East Finchley, London, N.2.
Williamson, A. O., Witchford, Ely, Cambs.
Williamson, T. W., 82, High Street, Winchester.
Willing, T., Bulleigh Barton, Ipplepen, S. Devon.
Willis, G. H., Ivy Lodge, Birdlip, Glos.
Wills, Capt. A. S., Thornby Hall, Northampton.
Wills, C. M., Sherfield Court, near Basingstoke.
Wills, Capt. D. M., Barley Wood, Wrington, Som.
Wills, G., Home Farm, Haccombe, Newton Abbot.

Willsher, H. G., "Maraval," Wood End Green, Hayes End, Middlesex.
Wilmot, Reginald M., Hole Farm Cottage, Lye Green, Withyham, Sussex.
Wilson, A., Thornley Park House, Paisley.
Wilson, C., Riseholm, Lincoln.
Wilson, Mrs. C. E., Mace Farm, Cudham, Sevenoaks.
Wilson, Walter, Helm Drive, Kendal.
Wilson-Sears, C., Montague Chambers, Montague Close, London Bridge, S.E. 1.
Wiltshire Creameries, Ltd. (represented by F. Kemp Walton), Cocklebury Road, Chippenham, Wilts.
Witherden, A. G. C., Church House, Church Street, Yeovil
Wolseley Sheep Shearing Machine Co., Ltd. (represented by G. Ward), Wolseley Works, Electric Avenue, Witton, Birmingham.
Women's Farm and Garden Association (represented by Miss A. Vanderpant), Courtauld House, Byng Place, Torrington Square, W.C. 1.
Wood, F. Russell, Bendish House, Welwyn, Herts.
Wood, Miss H. S., Shire Hall, Nottingham.
Wood, Miss L., Lauristons, Alumhurst Road, Bournemouth.
Woodall, W., 3, South Wharf, Praed Street, Paddington, W. 2.
Woodiwiss, Sam, Sedgemere, Great Waltham, near Chelmsford, Essex.
Woodley, A. D., Ltd., Little John's Farm, Reading.
Wooldridge, Prof. G. H., Royal Veterinary College, Camden Town, N.W. 1.
Wooster, G., Pennbury Farm, Penn, Bucks.
Worsley, P.H., Farmington, Northleach, Glos.
Wrathall, William, The Farm, Keighley Road, Skipton.
Wrennall, J., Electric Poultry Appliance Works, Barton, near Preston.
Wright, E. E., The Mount, Wirswall, Whitchurch, Salop.
Wright, Norman C., The Hannah Dairy Research Institute, Kirkhill, Ayr.
Wright, Sir Robert P., The Heugh, North Berwick, East Lothian.
Wright, William, Royals Wood Farm, Aston, Nantwich.
Wyllie, Hugh, Minsted, Midhurst, Sussex.

YATES, MRS. C., The Venn, Bromyard, Herefordshire.
Yates, Major S. P., Broughton Grange, Banbury (L.M.).
Yorke, Mrs. B. V., Peter's Farm, near Chippenham, Wilts.
Young & Co., Ltd. (represented by J. W. Brown), Abbey Road, S.W. 19.
Youngs of Horley (represented by F. A. Young), Fayson House, Horley.
Yule, Miss G. M., Hanstead House, Bricket Wood, St. Albans.

ZEIN-EL-DINE, M., The University, Reading.

N.B.—Members having any alterations to make in the Names and Addresses, as published in this List, are requested to give notice of the same, in writing, to the Secretary.

ABBREVIATIONS—(H.L.M.), Honorary Life Member. (H.M.) Honorary Member. (L.M.) Life Member.

HERD AVERAGE OVER 1,000 GALLS. FOR TEN YEARS.

Messrs. Burton & Sons' herd has had 2nd highest herd average in the Bedfordshire Milk Recording Society five times in the last six years. Read what this satisfied user says :

Wood End Farm,
Tingrith, Beds.

Dear Sirs,

We have been users of your Dairy Cake for many years, and of "H.Y." since it was first introduced by you.

For keeping cows in fit, healthy condition and milking consistently throughout the lactation we have found your "H.Y." to have given us every satisfaction.

Our official herd average for the last 10 years is 10,795 lbs.

Yours faithfully,
R. P. Burton & Sons.
(signed) P. A. BURTON.

One cow in the herd, "Maulden Primula 2nd," calved recently at 11½ years old. Silcock-fed throughout her milking life, she has produced so far approximately 49 tons of milk, and 10 live calves.

Another cow "Maulden Columbine," gave 14,590 lbs. with her 3rd calf, and followed this up with 20,431 lbs. in 365 days with her 4th calf. Like all the herd, Silcock-fed, of course, throughout.

SILCOCK'S H. Y. DAIRY NUTS

R. SILCOCK & SONS, LTD. STANLEY HALL, UNION STREET, LIVERPOOL

AFFILIATED SOCIETIES.

Amalgamated Master Dairymen, Ltd. Secretary, Thomas J. Goodchild, Napier House, 24/27, High Holborn, London, W.C. 1.

Ayrshire Cattle Herd Book Society. Secretary, Hugh Bone, 58, Alloway Street, Ayr.

British Friesian Cattle Society. Secretary, George Hobson, Aldwych House, Aldwych, London, W.C. 2.

British Goat Society. Secretary, H. E. Jeffery, Roydon Road, Diss, Norfolk.

British Kerry Cattle Society. Secretary, M. R. Leather, 12, Hanover Square, London, W. 1.

Cambridgeshire and Isle of Ely Agricultural Society. Secretary, L. J. Chater, County Hall, Hobson Street, Cambridge.

English Guernsey Cattle Society. Secretary, Robert F. Ling, 12, Hanover Square, London, W. 1.

English Jersey Cattle Society, Secretary, Edward Ashby, 19, Bloomsbury Square, London, W.C. 1.

National Association of Creamery Proprietors' and Wholesale Dairymen, Inc. Secretary, G. F. Gosney, Room 234, Shell Mex House, Victoria Embankment, London, W.C.2.

Red Poll Cattle Society. Secretary, C. H. Clarke, 29, Warrington Road, Ipswich.

Shorthorn Society of the United Kingdom of Gt.Britain and Ireland. Secretary, L. Bull, Victoria House, Southampton Row, London, W.C. 1.

South Devon Herd Book Society. Secretary, S. A. Yeo, 3, West Street, Okehampton.

ASSOCIATED SOCIETY.

Scientific Poultry Breeders' Association. Secretary, T. Newman, Rudgwick, Horsham, Sussex.

The British Dairy Farmers' Association will not be responsible for the accuracy of the statements or conclusions contained in the several papers in this Journal, the authors themselves being solely responsible.

The Association does not accept responsibility for any statements made in the advertisements appearing in this Journal.

INDEX TO ADVERTISERS

The British Dairy Farmers' Association does not accept responsibility for any statement made in the advertisement columns of this Journal.

	PAGE
Ayrshire Cattle Herd Book Society	444
Baxter, W. E., Ltd.,	1
British Dairy Institute	450
British Oil & Cake Mills Ltd.	4
Brooks (Mistley) Ltd.	3
Cataline Co., Ltd.	Outside Back Cover
Crown Cork Co., Ltd.	449
Forsters Glass Co., Ltd.	445
Holland, W. L.	447
King, G. W., Ltd.	446
Llewellin & Son	448
Mappin & Webb Ltd.	2
Mono Service Containers Ltd.	6
Olympia Oil & Cake Co., Ltd.	Inside Front Cover
Scientific Poultry Breeders' Association	452
Silcock, R., & Sons	441
Smith Bros. & Co., Ltd.	447
Women's Farm and Garden Association	447
World's 11th Dairy Congress	450

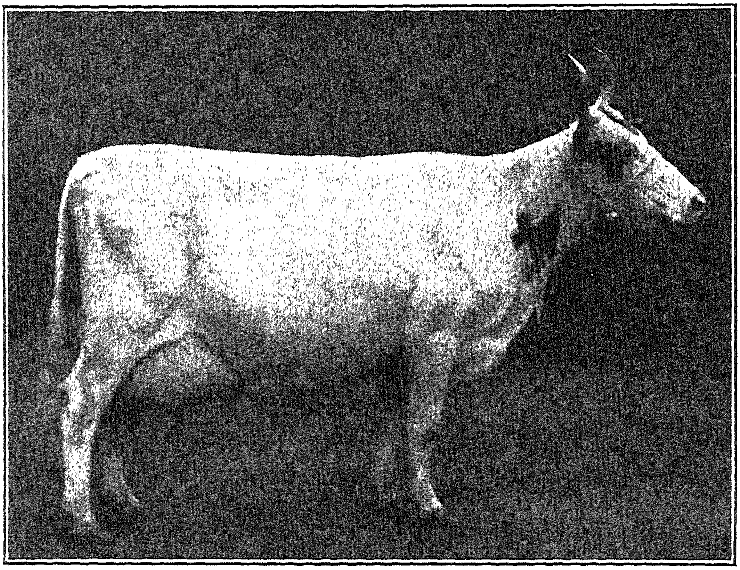
Seven Times Champions

at the London Dairy Show

AYRSHIRES

Won the BLEDISLOE CHALLENGE TROPHY

in 1923, 1924, 1925, 1928, 1932, 1935 and now again in 1936



Mr. Dugald Mackay's "Blackbyres Princess 3rd" 26930. First Inspection; Second Milking Trials; Highly Commended Butter Tests, London Dairy Show, 1936.

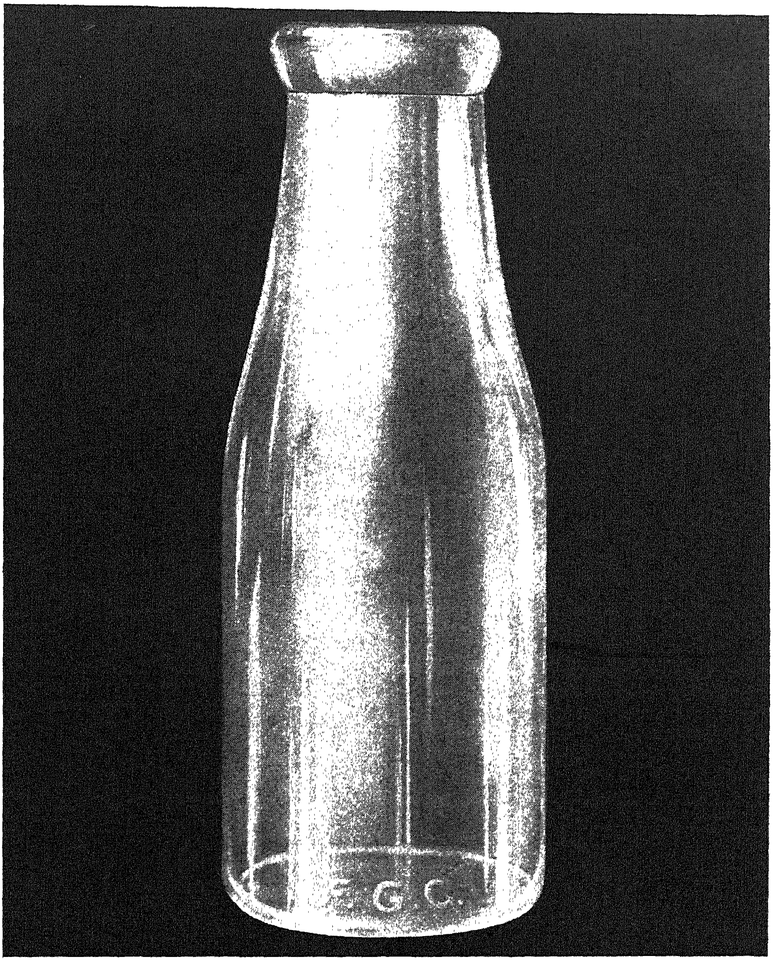
16 Ayrshire Cows averaged 68 lb. milk at 4.30% fat each day.
9 four-year-old Cows averaged 55.64 lb. milk at 5.05% fat each day.
11 Ayrshire heifers averaged 44 lb. milk at 4.70% fat each day.
2 cows each gave over 80 lb. milk in one day.
6 heifers each gave over 50 lb. milk in one day.
3 cows each gave over 3 lb. butter.

AT LONDON DAIRY SHOW

AYRSHIRES NEVER LET YOU DOWN!

For full information about the Breed that Pays, apply—

HUGH BONE, Secretary, Ayrshire Cattle Herd Book Society
58 ALLOWAY STREET, AYR



FORSTRENGTH

FORSTERS Bottles

LONDON—*St. Margaret's House,*
57/9 Victoria Street, *S.W.1*
Victoria 4438/9

GLASGOW—382*Central Chambers.*
93, *Hope Street.* *Central* 2609

DUBLIN—8, *Commercial Buildings,*
Dame Street. *Dublin* 22459

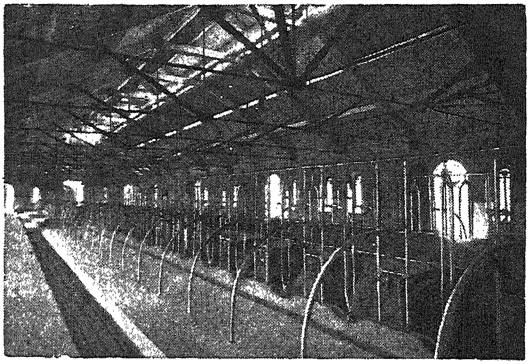
WRITE FOR FULL PARTICULARS AND PRICES TO

FORSTER'S GLASS CO., LTD., Atlas Glass Works, ST. HELENS, Lancs

Telephone 2256. *Telegrams: "Froking," St. Helens.*

BY APPOINTMENT

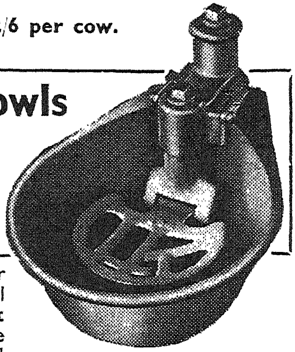
LOUDEN KING COW SHED EQUIPMENT



THE ROYAL FARM, WINDSOR.

Years of experience have enabled us to produce Cow Barn Equipment that is the acme of perfection. Herds can be housed under the most hygienic conditions, and the ease of maintenance materially assists the reduction of milk production costs.

Simple Partitions from 12/6 per cow.



Automatic Drinking Bowls

form an ideal and permanent watering system and definitely assist in obtaining the maximum milk yields.

More than 200,000 give daily satisfaction

Whatever your requirements, large or small, our Advisory Department is always at your disposal for suggestive plans and layouts. Make use of it without obligation whatsoever. We shall be pleased to send you our informative illustrated Catalogue B.D. 36 on receipt of a post card.

GEO. W. KING LTD.

Hartford Works, Hitchin, Herts.

TELEGRAMS:
AGRIKINGER, HITCHIN,

TELEPHONE:
HITCHIN 424 & 425

The PERFECT SEAL and CAP for ACCREDITED and TUBERCULIN TESTED MILK

RAPID HAND CAPPER SUPPLIED FREE!

The SEALCAP

Easy to put on—Easy to take off. No metal to tear fingers. Will fit any type of bottle. No machinery required. Ordinary and press discs at lowest prices

Write for Samples and Prices to-

SMITH BROS. & CO. LTD
(Patent Crimped Capsules)
110 Pratt St., London, N.W.1
'Grams : "Smibroco, Norwest, London."
Tel. : EUSton 1144 and 1145.

A.T.A.

ADELPHI MASH MIXERS AND VEGETABLE SHREDDERS

QUICKLY SAVE THEIR FIRST COST BY IMPROVING PRODUCTION AND REDUCING COSTS

All machines carry our six months, guarantee

Write for catalogue to

W. L. HOLLAND LTD Adelphi Works **PRESTON**

THE WOMEN'S FARM & GARDEN ASSOCIATION

(INCORPORATED) FOUNDED 1899

OBJECTS.—To unite all Professional Women workers in Agriculture, Horticulture and Allied Subjects, and those interested in such work for Women into a strong Central Association.

ADVISORY AND EMPLOYMENT DEPARTMENT

(LICENCED L.C.C.)

Club House for Members. Land Outfit Department.

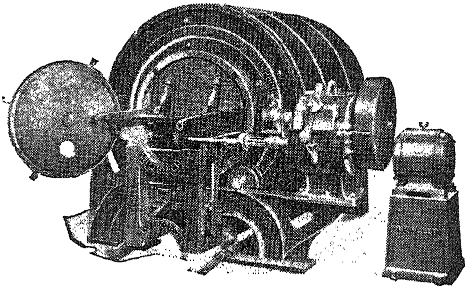
All further particulars from THE SECRETARY, Courtauld House, Byng Place, Torrington Square, London, W.C.1. *Telephone : Euston* 3651.

LLEWELLIN'S

COMBINED CHURNS & BUTTER WORKERS

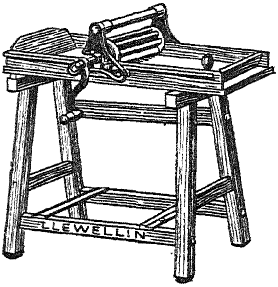
to churn from 35 gallons to 600 gallons

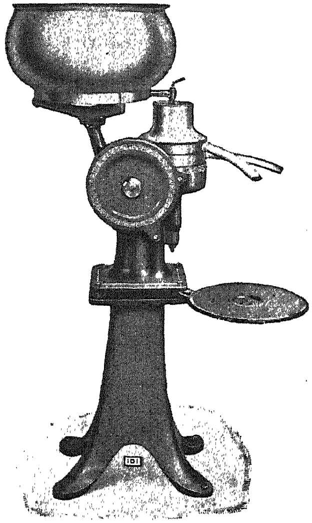
"VICTORY" CHURN as used for the Buttermaking Competitions at the DAIRY SHOW and many other agricultural shows. Won every highest award in the British Isles. Full range of sizes to churn from 6 to 100 lbs. of Butter.



MODEL J.L. Combined Churn and Butter-worker. Full range of sizes and types, including Internal Roller type churns with one, two and three pairs of rollers. Belt driven and motorised models.

"ALEXANDRA" Butterworker as used for the Buttermaking competitions at the DAIRY SHOW and many other Shows.





NEW MONARCH Cream Separators with Rust-Roof Bowls, Ball Bearings and all up-to-date improvements.

Please write for fully illustrated catalogues giving particulars of capacities in which you are interested.

G. LLEWELLIN & SON, HAVERFORDWEST, WALES

Dairy Engineers and Churn Manufacturers for over 150 years

ESTABLISHED 1789

STANDARDISED Bottle Sealing in YOUR dairy too!

Leakproof, Tamperproof, Weatherproof,

Economy . . . Efficiency . . . Speed . . .

OFFICIALLY APPROVED FOR PASTEURISED, ACCREDITED, TUBERCULIN TESTED, Etc., MILK.

THE CROWN CORK COMPANY LIMITED
APEXES WORKS - SOUTHALL - MIDDLESEX
Telephone: SOUthall 2241 Telegrams: APEXES, SOUTHALL
LONDON OFFICE: 91 Regent Street, W.1 Telephone: REGent 2465-6
MAKERS OF "DACRO" "MILCRO" AND "APEXES" MILK BOTTLE SEALS

BRITISH DAIRY INSTITUTE

under the joint control of

THE UNIVERSITY OF READING

and

THE BRITISH DAIRY FARMERS' ASSOCIATION.

Courses of Instruction covering Theoretical and Practical work in Dairying are provided.

The following qualifications can be obtained :—

B.Sc., Dairying (University of Reading).
National Diploma in Dairying.
Diploma in Dairying (University of Reading).
Certificates in Dairying.

Residential facilities are available for both men and women students.

For details, apply—
The Registrar, The University, Reading, Berks.

World's XI Dairy Congress

BERLIN

22nd—28th AUGUST, 1937

International Dairy Exhibition in Berlin

Following the Congress there will be visits to places of interest in all parts of Germany.

Full particulars can be obtained from
The Secretary, British Dairy Farmers' Association,
28, Russell Square, London, W.C. 1.

I Desire

TO BE ENROLLED AS A MEMBER

of **The British Dairy Farmers' Association,** *and herewith enclose the current year's Subscription of £ s. d. I agree to be bound by and to conform to the Memorandum and Articles of Association, Bye-laws, Rules, Regulations and Conditions of the Association so long as I remain a Member.*

Prefixes such as *Rev., Mrs., Miss,* &c., should here be stated. *Signature*..

Occupation..

Address ....

....

Date..............................*Proposed by* ....

The advantages of Membership include :—

A free pass to all the Association's Dairy Shows, available each day during the Exhibition, with the privilege of admitting free (by ticket) a friend on any one day. Reduced fees for the Exhibition of Live Stock, Dairy Produce, and Utensils (for competition) to Life Members and to Annual Members subscribing £1 per annum, whose subscription for the past year and current year is paid. A reduction of 10% is allowed to Standholders whose membership is of 3 years' standing. A copy (free by post) of the *Journal* of the Association published annually. Analyses by the Analytical and Consulting Chemist, at low fees, of samples of milk, cream, butter, cheese, feeding stuffs, water, soil, manures, &c., and advice on dairy matters connected with his Department. Professional advice and assistance at a reduced scale of charges in any case of disease among the live stock of the farm. Examinations by the Consulting Pathological Bacteriologist for particular pathogenic or disease-producing organisms. Investigations by the Consulting Dairy Bacteriologist into the cause of trouble or taints in dairy produce.

The annual Subscription is £1, but Dairy Instructors and Students, and full-time Secretaries and Recorders of Milk Recording Societies are admitted on payment of 10s. 6d. per annum. The latter sum entitles Members to all privileges, except the reduced fees for exhibition at the Shows. Life Membership £15.

This form, when filled up, should be forwarded to the Secretary, B.D.F.A., at 28, Russell Square, London, W.C.1.

"EGGS"

is full
of
interesting
matter
for all
enterprising
poultry
keepers
and is
the
Official
Organ
of the

SPBA

All Poultry Keepers should join—
Scientific Poultry Breeders' Association Ltd.,
Rudgwick, Sussex.

Minimum Annual Subscription - 5/-

FIFTY-NINTH

ANNUAL DAIRY SHOW

Royal Agricultural Hall
ISLINGTON, LONDON, N.

OCTOBER 19th, 20th, 21st, and 22nd, 1937

ENTRIES CLOSE—

NEW INVENTIONS, JULY 1st

LONG-KEEPING CHEESES, AUGUST 6th

BACON PIGS, AUGUST 23rd

STOCK and PRODUCE, SEPTEMBER 6th

POULTRY and PIGEONS, SEPTEMBER 25th

Applications for Schedule of Prizes to—

FRED J. BULL,
28, Russell Square, LONDON, W.C.1

Kindly state for which Section Schedule is required